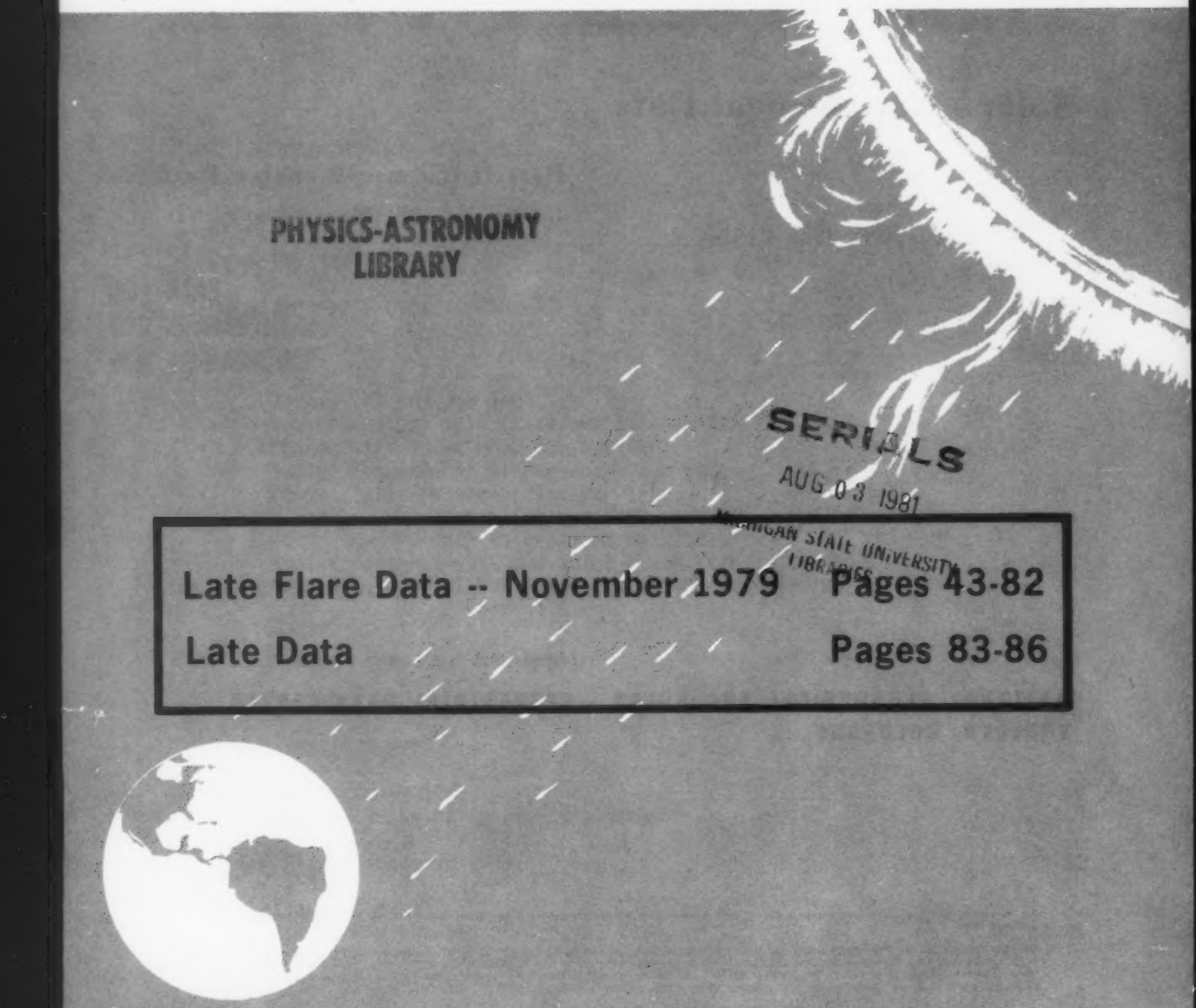
PHYS

JUNE 1981 NUMBER 442 -- Part II

Solar-Geophysical Data comprehensive reports

Data for December 1980, November 1979 & Miscellanea

Explanation of Data Reports Issued as Number 438 (Supplement) February 1981



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Late Flare Data -- November 1979 Pages 43-82

Late Data Pages 83-86

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Solar - Geophysical Data

Part II (Comprehensive Reports)

NO. 442 JUNE 1981

DATA FOR
DECEMBER 1980
NOVEMBER 1979

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SOLAR-GEOPHYSICAL DATA

No. 442

Issued in two parts

Helen E. Coffey, Editor

Joe H. Allen, Acting Chief
Solar-Terrestrial Physics Division

CONTENTS

Part I (Prompt Reports) PAGE

Index for 1980-1981 2

Data for May 1981 3-46

Data for April 1981 47-158

Late Data 159-182

Nancay 169 MHz Apr 1981
Interplanetary Scintillations Jan-Apr 1981
Pioneer XII Solar Wind Feb-Apr 1981
Sudden Ionospheric Disturbances Mar 1981
Cosmic Rays - Huancayo Jan-Mar 1981
Climax Feb-Mar 1981
Deep River/Alert Mar 1981
Sudden Commencements and Solar Flare Effects Mar 1981
Hourly Equatorial Dst Values (Provisional) Mar 1981

Part II (Comprehensive Reports)

Index for 1980-1981 2

Data for December 1980 3-42
Note on Delay of Solar Flare Data 4

Solar Flares November 1979 43-82

Miscellaneous Data
Active Regions Sep 25-Oct 22, 1980 83-85
Synoptic Solar Maps Sep 25-Oct 22, 1980
Regional Flare Index Oct 1979

DETAILED COVERAGE FOR 1980-81 PUBLISHED IN "SOLAR-GEOPHYSICAL DATA"

		1980 May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	1981 Jan	Feb	Mar	Apr	May
A.	SOLAR AND INTERPLANETARY PHENOMENA													
A.1	Sunspot Drawings	431A 48	432A 50	433A 48	434A 46	435A 50	436A 50	437A 60	438A 44	439A 46	440A 52	441A 58	442A 52	
A.2a	Zurich Provisional Relative Sunspot Numbers Rz	430A 11	431A 11	432A 11	433A 11	434A 11	435A 11	436A 11	437A 11	---	---	---	---	---
A.2aa	International Provisional Relative Sunspot Numbers Ri									438A 11	439A 9	440A 11	441A 13	442A 11
A.2b	Zurich Final Sunspot Numbers Rz	440A 10	440A 10	440A 10	440A 10	440A 10	440A 10	440A 10	440A 10					
A.2c	American Relative Sunspot Numbers Ra	430A 11	431A 11	432A 11	433A 11	434A 11	435A 11	436A 11	437A 11	438A 11	439A 9	440A 11	441A 13	442A 11
A.3a	Mt. Wilson Magnetograms	431A 48	432A 50	433A 48	434A 46	435A 50	436A 50	437A 60	438A 44	439A 46	440A 52	441A 58	442A 52	
A.3b	Mt. Wilson Magnetic Characteristics of Sunspots	431A110	432A110	433A110	434A108	435A110	436A112	437A120	438A106	439A108	440A108	441A120	442A112	
A.3c	Kitt Peak Magnetograms	431A 48	432A 50	433A 48	434A 46	435A 50	436A 50	437A 60	438A 44	439A 46	440A 52	441A 58	442A 52	
A.3d	Mean Solar Magnetic Field (Stanford)	430A 44	431A 41	432A 42	433A 40	434A 38	435A 42	436A 42	437A 48	438A 36	439A 38	440A 46	441A 50	442A 44
A.3e	Stanford Magnetograms	431A 48	432A 50	433A 48	434A 46	435A 50	436A 50	437A 60	438A 44	439A 46	440A 52	441A 58	442A 52	
A.4	H-alpha Filtergrams	431A 48	432A 50	433A 48	434A 46	435A 50	436A 50	437A 60	438A 44	439A 46	440A 52	441A 58	442A 52	
A.5	Calcium Plage Drawings - Mt. Wilson	431A110	432A110	433A110	434A108	435A110	436A112	437A120	438A106	439A108	440A108	441A120	442A112	
A.5a	Calcium Plage (Mt. Wilson) and Sunspot Regions	431A121	432A129	433A127	434A125	435A127	436A127	437A134	438A121	439A123	440A121	441A135	442A127	
A.5b	Mt. Wilson Daily Calcium Plage Indices	431A 44	432A 46	433A 44		435A 46	436A 46	437A 52	438A 40	439A 42	440A 48	441A 54	442A 48	
A.6	H-alpha Synoptic Charts	437B 40	438B 33	439B120	439B121	440B 48	442B 84							
A.6b	Synoptic Chart and Active Regions (Paris)	431A 45	432A 47	433A 45	434A 43	435A 47	436A 47	437A 54	438A 41	439A 43	440A 49	441A 55	442A 49	
A.6c	Stanford Solar Magnetic Field Synoptic Charts		432A 48	433A 46	434A 44	435A 48	436A 48	437A 56	438A 42	439A 44	440A 50	441A 56	442A 50	
A.6d	Kitt Peak Solar Magnetic Field Synoptic Charts	435R 47	436R 46	436R 36	438B 29	439B 29	440B 38	441R 51	442R 42					
A.6e	Mass Ejections from the Sun	430A 41	432A167	432A 37	433A 35	436A177	436A177	436A 39	437A 44	438A 33	439A 39	441A170	---	
A.7f	Helium D3 Chromosphere (Big Bear)	431A 46	432A 49	433A 47	434A 45	435A 49	436A 49	437A 58	438A 43	439A 45	440A 51	441A 57		
A.7g	Helium Synoptic Maps (KPNO)	431A 48	432A 50	433A 48	434A 46	435A 50	436A 50	437A 60	438A 44	439A 46	440A 52	441A 58	442A 52	
A.7h	Coronal Line Emission (Sac Peak)	430A 11	431A 11	432A 11	433A 11	433A 11	435A 11	436A 11	437A 11	438A 11	439A 9	440A 11	441A 13	442A 11
A.8aa	2800 MHz - Daily Values of Solar Flux (ARO-Ottawa)	430A 11	431A 11	432A 11	433A 11	433A 11	435A 11	436A 11	437A 11	438A 11	439A 9	440A 11	441A 13	442A 11
A.8ac	2800 MHz - Daily Values of Adj. Solar Flux (ARO-Ottawa)	430A 11	431A 11	432A 11	433A 11	434A 11	435A 11	436A 11	437A 11	438A 11	439A 9	440A 11	441A 13	442A 11
A.8g	Daily Values of Adjusted Solar Flux (AFGL)	430A 25	432A166	432A 24	433A 22	434A 25	436A175	438A160	438A161	439A154	439A 24	440A 29	442A160	442A 27
A.10a	169 MHz - Interferometric Observations (Nancay)	430A 29	431A 28	432A 27	433A 25	434A 28	435A 30	436A 29	437A 34	438A 24	439A 27	440A 32	441A 33	442A 30
A.10c	21 cm East-West Solar Scans (Fleurs)	430A 30	431A 29	432A 28	433A 26	434A 29	435A 31	436A 30	437A 35	438A 25	439A 28	440A 33	441A 34	442A 31
A.10d	43 cm East-West Solar Scans (Fleurs)	430A 28	431A 27	432A 26	433A 24	434A 27	435A 29	436A 28	437A 33	438A 23	439A 26	440A 31	441A 32	442A 29
A.10e	10.7 cm East-West Solar Scans (Ottawa-ARO)	430A 27	431A 26	432A 25	433A 23	434A 26	435A 28	436A 27	437A 32	438A 22	439A 25	440A 30	441A 31	442A 28
A.10f	3 cm East-West Solar Scans (Toyokawa)	435R 41	436R 41	437B 30	438B 23	439B 23	440B 32	441B 46	442B 36					
A.11g	Solar X-ray (SMS/GOES) (graphs)	431A160	431A 38	432A 38	---	---	---	---	---	---	---	---	---	---
A.12bb	Cosmic Ray Protons (Pioneers 8 & 9)	---	431A 38	432A 39	433A 36	---	---	---	---	---	---	---	---	---
A.17e	Energetic Solar Particles (IMP H & J)	431A160	431A 38	432A 38	433A 37	---	---	---	---	---	---	---	---	---
A.13a	Solar Wind (Pioneers 6 & 7)	430A 37	431A 36	432A 34	433A 31	434A 34	435A 37	436A 37	437A 41	442A161	442A161	442A161	442A161	442A 39
A.13ab	Solar Wind (Pioneers 8 & 9)	436B100	436B 40	437B 29										
A.13d	Solar Wind from IPS Measurements	431A161	431A 39	432A 39	433A 37	435A160	435A 43	436A 43	437A 45	438A 37	442A170	442A170	442A171	442A 45
A.13e	Solar Plasma (IMP H & J)	431A160	431A 38	432A 38	433A 37	---	---	---	---	---	---	---	---	---
A.13f	Solar Wind (Pioneer 12 (Venus))	431A125	432A132	433A131	---	---	436A132	438A162	438A125	439A127	440A153			
A.17	Interplanetary Magnetic Field (Pioneer 9)	430A 42	432A 40	432A 40	433A 38	436A 40	436A 40	436A 40	437A 46	438A 34	439A 36	440A 44	441A 48	442A 42
A.17	Interplanetary Magnetic Field (Pioneer 12)	431A160	431A 38	432A138	---	---	---	---	---	---	---	---	---	---
A.17c	Inferred IP Magnetic Field													
A.19	Interplanetary Electric Field (Pioneer 9)													
B.	IONOSPHERIC (AND RADIO WAVE PROPAGATION) PHENOMENA													
B.52	Graphs of Transmission Frequency Range	431A156	432A162	433A154	434A154	435A156	436A172	437A170	438A156	439A150	440A154	441A167	442A156	
B.53	Quality Figures Based on Frequency Ranges	431A155	432A164	433A156	434A153	435A158	436A174	437A169	438A155	439A152	440A156		442A158	
C.	FLARE-ASSOCIATED EVENTS													
C.1a	Optical Observations Flares	430A 16	431A 16	432A 16	433A 16	434A 16	435A 16	436A 16	437A 16	438A 16	439A 14	440A 18	441A 18	442A 16
C.1ha	Optical Observations Flares (Standardized Data)													
C.1d	Flare Patrol Observations	430A 46	431A 25	432A 23	433A 21	434A 24	435A 27	436A 26	437A 31	438A 21	439A 23	440A 28	441A 30	442A 26
C.1d	Flare Patrol Observations													
C.1e	Flare Indices (by day)													
C.1f	Flare Indices (by Region)													
C.3	Solar Radio Waves - Outstanding Occurrences	435B 5	436B 5	437B 5	438B 5	439B 5	440B 5	441B 5	442B 5					
	Solar Radio Waves - Fixed Frequencies - Selected	430A 31	431A 30	432A 29	433A 27	434A 30	435A 32	436A 31	437A 36	438A 26	439A 29	440A 34	441A 35	442A 32
C.4a	Solar Radio Spectral Obs. (Fort Davis)	431A126	432A133	433A132	434A129	435A131	436A133	437A139	439A155	439A128	440A126	441A136	442A134	
C.4d	Solar Radio Spectral Obs. (Culgoora)	431A126	432A133	433A132	434A129	435A131	436A133	437A139	438A126	439A128	440A126	441A136	442A134	
C.4e	Solar Radio Spectral Obs. (Weissenau)	431A126	432A133	434A177	434A129	435A131	436A133	437A139	438A126	439A128	440A126	441A136	442A134	
C.4f	Solar Radio Spectral Obs. (Sagamore Hill)	431A126	433A158	433A132	434A129	435A131	436A133	437A139	438A126	439A128	440A126	441A136	442A134	
C.4h	Solar Radio Spectral Obs. (Owingeloo)	431A126	432A133	433A132	434A129	435A131	436A133	437A139	438A126	439A128	440A126	441A136	442A134	
C.4i	Solar Radio Spectral Obs. (Bleien)	431A126	432A133	434A177	434A129	435A131	436A133	437A139	438A126	439A128	440A126	441A136	442A134	
C.4j	Solar Radio Spectral Obs. (Manila)													
C.4k	Solar Radio Spectral Obs. (Learmonth)	431A126	433A158	433A132	434A129	435A131	436A133	437A139	438A126	439A128	440A126	441A136	442A134	
C.4l	Solar Radio Spectral Obs. (Palehua)	431A126	433A158	433A132	434A129	435A131	436A133	437A139	438A126	439A128	440A126	441A136	442A134	
C.5a	Solar X-ray (SMS/GOES) (graphs)	435B 5	436B 5	437B 5	438B 5	439B 5	440B 5	441B 5	442B 5					
C.6	Sudden Ionospheric Disturbances	431A122	432A129	433A128	434A126	435A128	436A128	437A135	438A122	439A128	440A122	442A172	442A128	
D.	GEOMAGNETIC AND MAGNETOSPHERIC PHENOMENA													
D.1a	Geomagnetic Indices Kp, Km, Ks, Km, Ap, aa, Cp	431A151	432A158	433A150	434A147	435A152	436A166	437A163	438A149	439A145	440A149	441A162	442A152	
D.1ha	27-day Chart of Kp Indices	431A153	432A160	433A152	434A149	435A154	436A168	437A165	438A151	439A147	440A151	441A164	442A153	
D.1c	27-day Chart of Cp	441A165	441A165	441A165	441A165	441A165	441A165	441A165	441A165					
D.1ca	aa graph 1868 - present	431A154	432A161	433A153	434A152	435A155	436A171	437A168	438A154	439A148	440A152	441A166	442A155	
D.1d	Principal Magnetic Storms													
D.1e	Reduced Magnetograms	433A163	433A168	434A188	435A164	436A179	437A176	437A169	439A163	439A149	441A170	442A180		
D.1f	Sudden Commencement and Solar Flare Effects	433A167	434A186	434A147		436A178	436A168	437A167	438A153	440A160	441A172	442A182		
D.1g	Equatorial Indices Dst	430A 45	431A 42	432A 43	433A 41	434A 40	435A 44	436A 44	437A 49	438A 38	439A 40	440A 43	441A 51	442A 46
D.1h	Geomagnetic Substorm Log (Boulder)													
F.	COSMIC RAYS													
F.1a	Cosmic Ray Neutron Counts (Deep River)	432A170	433A165	434A183	434A146	435A151	436A165	438A163	439A162	440A159	440A145	442A177	442A151	
F.1b	Cosmic Ray Neutron Counts (Climax)	431A150	433A165	433A147		436A165	438A163	438A163		440A159	442A177	442A177	442A151	
F.1c	Cosmic Ray Neutron Counts (Alert)	432A170	433A165	434A183	434A146	435A151	436A165	438A163	439A162	440A159	440A145	442A177	442A151	
F.1e	Cosmic Ray Neutron Counts (Thule)	431A150	432A155	433A147	434A146	435A151	436A165	437A162	438A148	439A144	440A145	441A159	442A151	
F.1n	Cosmic Ray Neutron Counts (Kiel)	431A150	432A155	433A147	434A146	435A151	436A165	437A162	438A148	439A144	440A145	441A159	442A151	
F.1i	Cosmic Ray Neutron Counts (Tokyo)	431A150	430A155	433A147	434A146	435A151	436A165	437A162	438A148	439A144	440A145	441A159	442A151	
F.1j	Cosmic Ray Neutron Counts (Huancayo)	433A165	435A161	437A175	437A175	437A175	438A163	439A162	439A162	442A177	442A177	442A177		
F.11	Cosmic Ray Neutron Counts (Huancayo)													
H.	MISCELLANEOUS	430A 5	431A 5	432A 5	433A 5	434A 5	435A 5	436A 5	437A 5	438A 5	439A 4	440A 5	441A 5	442A 5
H.60	IUWDS Alert Decisions													
H.62	Abbreviated Calendar Record													

Notes:

"431A 38" listed under 1980 May means that the sunspot drawings for May 1980 were contained in *Solar-Geophysical Data* Number 431 - Part I, beginning on page 38.

A = Part I, B = Part II.

----- = no data available.
blank = data not yet received.

SGD 442 Part II (Comprehensive)

DECEMBER 1980 DATA

Contents

	Page
Active Regions (Data not available at time of publication.)	
Synoptic Solar Maps (Data not available at time of publication.)	
Solar Flares (Data not available at time of publication.)	SEE NOTE ON PAGE 4.
H-alpha Solar Flares (Standardized Data)	
Daily Flare Indices	
Intervals of No Flare Patrol Observation	
Solar Radio Emission	5-35
Outstanding Occurrences (Fixed Frequencies)	
Energetic Solar Particles and Plasma (Data not available at time of publication.)	
Solar X-ray Radiation	
SMS-GOES	36-41
Mass Ejections from the Sun	42

NOTE ON DELAY OF GROUPED SOLAR FLARE DATA:

Beginning with the July 1980 issue of *Solar-Geophysical Data*, we planned to publish the final listing of solar flares 13 months, rather than 6 months, from the date of observation. Although this schedule has not been met since the July 1980 issue was published, we and our colleagues at the Meudon Observatory plan to return to the 13-month delay as soon as possible. This new schedule will cause the Daily Flare Index and the Regional Flare Index to appear 13 and 14 months from the date of observation. At the same time we are suspending indefinitely publication of the Abbreviated Calendar Record. We deeply regret this situation, but the volume of data recorded during sunspot maximum and computer conversion problems at the Meudon Observatory and at NGSDC have forced these greater delays on us.

For researchers who need the comprehensive solar flare data more promptly, NGSDC plans to generate in the next few weeks "preliminary" listings from November 1979 through the "current" month that lies 13 months from the month of observation. These complete tabulations will lack the final Meudon corrections, and will only be published after they have been made. Nevertheless, printouts for this period will be available on request, if they be recognized at "preliminary" when used in research projects. A fee may be charged for reproducing these data. Please contact the editor, Helen E. Coffey, at (303) 497-6223 or telex 45897 SOLTERWARN BDR.

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

DECEMBER 1980

DAY OF MONTH	FREQUENCY	STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
				UT	UT	MINUTES	PEAK	MEAN		
01	200	GORK	44 NS	0615.0E		252.0D		5		
	127	TORN	44 NS	0720.0E	1118.2	290.0D	230	2.8		V1
	260	ONDR	44 NS	0820.0E		347.0D	40	2		
	260	ONDR	44 NS	0820.0E		347.0D	40	2		
	100	GORK	44 NS	0957.0D		87.0D		5		
	245	SGMR	43 NS	1159.0	1602.5	547.0D	160			
	410	SGMR	43 NS	1159.0	1258.0	547.0D	40			
	3750	TYKW	45 C	0808.0	0811.6	20.0	9	3		
	9400	TYKW	5 S	0809.0	0811.5	20.0	12	3		
	2930	VORO	45 C	0818.0	0821	7.0	64			
	245	LEAR	8 S	0258.6	0258.8	.2	73			
	2000	TYKW	20 GRF	0420.0	0424	115.0	6	2.5		
	3750	TYKW	45 C	0420.0	0423.9	10.0	12	7		
	9400	TYKW	20 GRF	0420.0	0426	90.0	7	3		
	1000	TYKW	5 S	0424.0	0424.1	.7	10	3		
	1000	TYKW	5 S	0426.4	0426.6	.6	5	1		
	3750	TYKW	29 PBI	0430.0		105.0	6	3		
	9100	GORK	20 GRF	0618.8	0847.2	280.0	16			
	3750	TYKW	45 C	0620.0	0626.1	25.0	10	6		
	2000	TYKW	45 C	0624.0	0625.5	5.0	9	1.5		
	9400	TYKW	20 GRF	0624.0	0628	30.0	10	5		
	4995	LEAR	4 S/F	0624.5	0626.6	4.3	21			
	8800	LEAR	4 S/F	0624.5	0627.1	3.8	13			
	1000	TYKW	42 SER	0624.6	0625.6	3.0	8	1		
	1415	LEAR	8 S	0624.8	0625.5	.8	84			
	204	IZMI	41 F	0714.0	0717.0	5.0	140			
	810	KRAK	42 SER	0747.5E		36.5D	17			
	204	IZMI	41 F	0835.0	0838.3	4.0	114			
	245	LEAR	8 S	0835.3	0836.0	1.7	85			
	536	ONDR	8 S	0910.5	0910.5	.2	20			
	536	ONDR	8 S	0910.5	0910.5	.2	20			
	430	KRAK	27 RF	0922.0	0953.0	87.0	90	17		
	3100	CRIM	26 FAL	0936.0	1150.0		11			
	113	POTS	4 S/F	1057.3	1057.5	.6	150	30		
	113	POTS	4 S/F	1118.3	1118.4	.2	200	50		III
	113	POTS	4 S/F	1132.0	1133.7	4.6	280	15		III
	260	ONDR	45 C	1132.4	1134.6	5.0	142	29		
	260	ONDR	45 C	1132.4	1134.6	5.0	142	29		
	33	UPIC	46 C	1132.5	1133.9	4.5				
	204	IZMI	41 F	1132.8	1133.2	3.0	480			
	127	TORN	47 GB	1132.8	1133.5	5.0	3900	670		DISTURBED
	234	POTS	4 S/F	1133.3	1133.7	2.9	575	12		III
	536	ONDR	42 SER	1133.5	1242.0	122.0	29			
	536	ONDR	42 SER	1133.5	1242	122.0	29			
	29	UPIC	46 C	1133.6	1134.2	3.4				
	9400	HUAN	S	1215.8	1217.2	3.0	11.8	5.6		R
	9500	POTS	1 S	1216.5	1217.2	1.5	7.4			
	2800	OTTA	20 GRF	1440.0	1507	70.0	3.8	1.9		
	2800	OTTA	21 GRF	1800.0	1803	40.0	8.6	4.3		
	9400	HUAN	S	1803.5	1808.7	27.8	16.2	6.0		B
	2800	OTTA	4 S/F	1804.0	1806	7.0	10.4	4.8		
	2800	OTTA	21 GRF	1905.0	1940	95.0	6.0			
	9400	HUAN	S	1922.6	1933.2	27.7	17.6	5.4		L
	4995	PALE	4 S/F	1925.5	1930.8	12.5	70			
	15400	PALE	4 S/F	1925.5	1930.8	12.5	88			
	8800	PALE	4 S/F	1925.5	1930.8	12.5	270			
	4995	SGMR	4 S/F	1929.5	1930.8	6.8D	93			
	8800	SGMR	4 S/F	1929.6	1930.8	4.7D	210			
	15400	SGMR	8 S	1930.1	1930.8	1.9	60			
	9400	HUAN	S	1930.1	1930.8	2.2	136.2	65.3		L
	2800	OTTA	1 S	1930.5	1930.8	2.0	4.6	2.0		
	2695	PENT	1 S	2007.0	2008.3	10.0	4.2	2.0		
	9400	TYKW	5 S	2256.0	2256.5	1.0	15	5		
	9400	TYKW	5 S	2308.6	2308.8	.6	13	4		
	3750	TYKW	45 C	2328.0	2349	25.0	12	5		
	2000	TYKW	21 GRF	2329.0	2343	65.0	3	1		
	2000	TYKW	5 S	2330.5	2331.0	1.0	2	.7		
	1000	TYKW	5 S	2332.0	2332.4	1.0	10	2.5		
	1000	TYKW	5 S	2336.4	2336.6	.6	8	2.5		
	1000	TYKW	45 C	2341.2	2341.5	.5	10	4		
	9400	TYKW	21 GRF	2342.0	2348	50.0	5	2		
	3750	TYKW	29 PBI	2353.0		40.0	7	3		
02	245	LEAR	43 NS	0230.0	0350.6	487.0D	42			
	127	TORN	44 NS	0720.0E		490.0D		1.9		V1,DISTURBED
	260	ONDR	44 NS	0825.0E		328.0D	20			
	260	ONDR	44 NS	0825.0E		328.0D	20			
	245	PALE	43 NS	1713.0	1952.8	618.0D	100			
	410	PALE	43 NS	1713.0	0051.8	618.0D	56			
	100	HIRA	44 NS	2129.0E	2135 U	210.0D	90 U	15		WL
	200	HIRA	44 NS	2129.0E	0028	600.0D	20	10		O

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

DECEMBER 1980

DAY OF MONTH	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	POLARIZATION OR REMARKS
02	9400	TYKW	8 S	0030.3	0030.4	.3	10	2		
	3750	TYKW	20 GRF	0102.0	0121	50.0	4	2		
	9400	TYKW	20 GRF	0105.0	0125	45.0	3	1.5		
	3750	TYKW	5 S	0154.0	0154.8	2.0	3	1		
	2800	TYKW	5 S	0425.0	0425.7	2.0	1.5	.5		
	3750	TYKW	5 S	0425.0	0425.7	2.0	5	2		
	3750	TYKW	45 C	0523.0	0528 U	80.0U	22 U	6 U		
	3100	CRIM	3 S	0605.0	0606.5	4.0	31	10		
	4995	LEAR	47 GB	0619.1	0627.0	16.2	44			
	8800	LEAR	8 S	0619.3	0619.8	1.2	22			
	15000	KISV	29 GRF	0625.0	0627	35.0	12			
	15400	LEAR	8 S	0626.3	0627.3	.2	16			
	2695	LEAR	8 S	0626.8	0627.0	.2	13			
	9100	GORK	23 GRF	0630.0E		316.0D				
	3100	CRIM	26 FAL	0732.0	0912.0		6			
	5200	BERN	45 C	0745.2	0746.0	6.0	28.0			ONLY PAPER REC
	3200	BERN	45 C	0745.2	0746.0	6.0	.0			ONLY PAPER REC
	9100	GORK	1 S	0745.6	0746.1	1.7	28	14		
	2950	GORK		0745.8	0748.9		10			
	2950	GORK	45 C	0745.8	0746.1	3.3	16			
	810	KRAK	42 SER	0753.5E	0757.5	5.7D	90			
	810	KRAK	8 S	0811.0	0811.0	.2	10			
	810	KRAK	8 S	0812.0	0812.0	.1	11			
	930	BORD	8 S	0842.4	0842.4	.1	36	1		
	3100	CRIM		0845.0	0848.6		16			
	3100	CRIM	42 SER	0845.0	0845.8	4.0	31	10		
	8400	BERN	3 S	1036.2	1046.0	21.0	41.0			
	5200	BERN	3 S	1036.2	1044.9	24.0	18.0			
	11800	BERN	3 S	1040.3	1045.8	15.0	30.0			
	15000	KISV	4 S/F	1043.0	1045	11.0	16			
	9100	GORK	1 S	1044.2	1045.5	3.4	20	10		
	3200	BERN	4 S/F	1102.0	1124.0	90.0	.0			ONLY PAPER REC
	5200	BERN	4 S/F	1102.0	1123.9	90.0	134.0			
	9500	POTS	8 S	1104.0	1104.2	.5	29			
	8400	BERN	4 S/F	1110.0	1123.0	80.0	246.0			
	11800	BERN	4 S/F	1110.0	1122.4	70.0	429.0			
	4995	ATHN	4 S/F	1118.6	1123.6	26.9D	130			
	9100	GORK	3 S	1118.9	1122.3	8.0	220			
	9500	POTS	29 PBI	1120.0	1122.6	65.0	260			
	19600	BERN	4 S/F	1120.0	1122.4	60.0	292.0			
	10715	DWIN	45 C	1121.0	1122	30.0	400	100		
	3000	POTS	29 PBI	1121.0	1122.7	52.0	31			
	2650	DWIN	1 S	1121.0	1122	9.0	20	10		
	2695	ATHN	4 S/F	1121.3	1122.5	24.2D	37			
	8800	ATHN	4 S/F	1121.5	1123.6	20.0D	250			
	2950	GORK	20 GRF	1121.7	1127.7	11.8	26	13		
	9400	HUAN		1121.7	1123.8		158.6			R
	9400	HUAN	C	1121.7	1122.5	6.0	157.7	86.2		R
	3100	CRIM	3 S	1122.0	1123.5	18.0	34	11		
	9400	HUAN	PBI	1127.7	1127.7	26.3	27.1	15.1		L
	810	KRAK	8 S	1131.3	1131.3	.2	15			
	3100	CRIM	29 PBI	1140.0	1144.0		17			
	536	ONDR	8 S	1206.3	1206.3	.2	18			
	536	ONDR	8 S	1206.3	1206.3	.2	18			
	8800	ATHN	4 S/F	1233.3	1247.8	38.8	139			
	3200	BERN	46 C	1234.0	1243.0	120.0	.0			ONLY PAPER REC
	5200	BERN	46 C	1234.0	1246.7	120.0	71.0			
	8400	BERN	46 C	1235.0	1246.7	120.0	68.0			
	2650	DWIN	21 GRF	1236.0	1242	25.0	35	20		
	3000	POTS	4 S/F	1236.5	1247.5	31.0	55			
	4995	ATHN	4 S/F	1236.5	1247.8	26.8D	71			
	9500	POTS	21 GRF	1237.0	1247.5	53.0	31			
	11800	BERN	46 C	1238.0	1246.7	115.0	63.0			
	9400	HUAN	S	1240.2	1247.6	32.5	17.0	10.3		R
	2650	DWIN	1 S	1246.0	1446.5	1.0	20	10		
	9500	POTS	8 S	1246.1	1246.2	.4	77			
	9400	HUAN	8 S	1246.5	1246.7	.7	50.9	20.4		R
	930	BORD	8 S	1246.6	1246.9	.4	102	6		
	1470	POTS	3 S	1246.7	1246.9	1.3	6.2			
	810	KRAK	8 S	1246.8	1247.0	.2	120			
	810	KRAK	8 S	1247.5	1247.7	.3	70			
	2800	OTTA	21 GRF	1320.0	1355	210.0D	17.2			
	9400	HUAN	S	1332.8	1342.2	70.4	27.1	11.7		R
	4995	ATHN	4 S/F	1337.5	1341.5	11.0D	49			
	2695	ATHN	4 S/F	1337.5	1341.6	10.0D	33			
	2800	OTTA	3 S	1339.0	1342	10.0	21.6	6.0		
	2650	DWIN	1 S	1340.0	1341	3.0	20	10		
	3000	POTS	3 S	1340.2	1341.8	4.8	31			
	8800	ATHN	4 S/F	1340.8	1342.0	8.5	21			
	9500	POTS	3 S	1341.0	1342.2	4.0	16			
	2800	OTTA	20 GRF	1820.0	1830	40.0	3.4	2.0		
	2800	OTTA	22 GRF	1915.0	2005	95.0	9.2	4.0		
	15400	PALE	8 S	1921.3	1921.6	1.5	33			
	4995	PALE	8 S	1922.3	1922.6	.3	13			
	606	PALE	4 S/F	1923.1	1925.3	2.9	17			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

DECEMBER 1980

DAY OF MONTH	FREQUENCY	STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
				UT	UT	MINUTES	PEAK	MEAN		
02	245	PALE	8 S	1947.3	1948.3	1.0	79			
	15400	PALE	8 S	1947.8	1947.8	.3	24			
	9400	TYKW	45 C	2242.0	2256.6	40.0	15	4		
	3750	TYKW	45 C	2248.0	2312.7	55.0	11	3		
	2000	TYKW	20 GRF	2352.0	2358 +	50.0	12	4		
	3750	TYKW	45 C	2352.0	2358.1	60.0	24	8		
	9400	TYKW	20 GRF	2354.0	0009	50.0	11	5		
03	245	LEAR	43 NS	0655.5	0845.5	180.0	65			
	410	LEAR	43 NS	0756.5	0836.6	93.0	65			
	260	ONDR	44 NS	0825.0E		334.0D	31			
	260	ONDR	44 NS	0825.0E		334.0D	31			
	200	HIRA	44 NS	2131.0E	0050	600.0D	120	20		O
	245	LEAR	43 NS	2310.8	0159.1	687.2D	230			
	410	LEAR	43 NS	2312.8	2319.3	667.0D	43			
	9400	TYKW	45 C	0122.0	0136	45.0	9	2.5		
	3750	TYKW	45 C	0122.0	0146	65.0	16	5		
	245	LEAR	8 S	0133.8	0134.3	.8	58			
	8800	LEAR	8 S	0135.3	0135.5	.3	13			
	2000	TYKW	20 GRF	0150.0	0203	30.0	2	1		
	3750	TYKW	20 GRF	0356.0	0409.5	40.0	6	1.5		
	245	LEAR	4 S/F	0645.8	0646.8	3.7	28			
	410	LEAR	4 S/F	0646.0	0647.0	3.5	45			
	245	LEAR	8 S	0650.1	0650.3	.5	100			
	410	LEAR	8 S	0751.0	0751.3	.6	180			
	536	ONDR	42 SER	1057.0	1058.6	13.0	64			
	536	ONDR	42 SER	1057.0	1058.6	13.0	64			
	810	KRAK	8 S	1058.0	1058.0	.1	20			
	930	BORD	41 F	1058.3	1058.4	.2	22	2		
	810	KRAK	8 S	1109.0	1109.1	.2	60			
	430	KRAK	8 S	1109.5	1109.5	.1	130			
	930	BORD	8 S	1109.7	1109.7	.2	63	2		
	810	KRAK	40 F	1214.7	1214.8	1.5	8	1		
	234	POTS	4 S/F	1318.1	1318.2	.5	170	5		III
	113	POTS	4 S/F	1318.2	1318.3	.6	200	70		III
	536	ONDR	8 S	1342.8	1342.8	.2	73			
	536	ONDR	8 S	1342.8	1342.8	.2	73			
	9400	HUAN	S	1813.7	1814.8	3.0	5.0	2.8		0
	2800	OTTA	240AR	1910.0	1916	6.0	4.2	2.1		
	2800	OTTA	2 S/F	1911.0	1912.4	2.0	6.4	2.2		
	9400	TYKW	20 GRF	2250.0	2321	70.0	7	3		
	2000	TYKW	20 GRF	2250.0U	2325 U	70.0U	4 U	2 U		
	3750	TYKW	20 GRF	2250.0	2317	70.0	10	4		
	606	PALE	8 S	2300.8	2300.8	.3	220			
	606	LEAR	8 S	2300.8	2300.8	.2	280			
	1415	LEAR	8 S	2307.6	2307.8	.2	17			
04	200	GORK	44 NS	0624.0E		300.0D		5		
	204	IZMI	44 NS	0700.0E		300.0D	30			
	260	ONDR	44 NS	0820.0E		349.0D	74	3		
	260	ONDR	44 NS	0820.0E		349.0D	74	3		
	127	TORN	44 NS	0830.0E	0928.4	290.0D	120	8.3		V1
	200	HIRA	44 NS	2132.0E	2300	210.0D	20	5		O
	245	LEAR	8 S	0041.8	0042.1	.5	139			
	9400	TYKW	5 S	0050.0	0051.3	5.0	3	1.5		
	3750	TYKW	21 GRF	0114.0	0140	65.0	5	2		
	3750	TYKW	5 S	0115.0	0118	10.0	5	2		
	9400	TYKW	20 GRF	0115.0	0140	65.0	4	2		
	3750	TYKW	5 S	0142.0	0143	3.0	3	1		
	4995	LEAR	8 S	0142.5	0142.8	.6	11			
	8800	LEAR	8 S	0142.8	0143.1	.5	11			
	2000	TYKW	21 GRF	0157.0	0205	30.0	3	1.5		
	2000	TYKW	8 S	0158.0	0158.2	.4	5	1		
	3750	TYKW	5 S	0228.0	0228.4	10.0	3	1		
	3750	TYKW	21 GRF	0228.0	0248	210.0	3	1.5		
	2000	TYKW	21 GRF	0230.0	0250	70.0	2	1		
	9400	TYKW	21 GRF	0232.0	0240	60.0	3	1.5		
	1000	TYKW	8 S	0232.1	0232.3	.4	18	7		
	9400	TYKW	5 S	0259.8	0300.0	1.0	9	2		
	3750	TYKW	5 S	0312.0	0313.2	1.5	7	3		
	4995	LEAR	8 S	0312.5	0313.0	.6	17			
	9400	TYKW	5 S	0313.0	0313.6	1.0	7	2		
	3750	TYKW	29 PBI	0313.5		14.0	3	1.5		
	9400	TYKW	29 PBI	0314.0		10.0	2	1		
	2000	TYKW	5 S	0333.6	0333.8	.5	2	.5		
	3750	TYKW	5 S	0335.0	0335.4	1.0	2	.7		
	9400	TYKW	5 S	0336.0	0336.5	5.0	3	1		
	3750	TYKW	5 S	0400.0	0405.5	25.0	4.5	1.5		
	2000	TYKW	20 GRF	0410.0	0430	110.0	2	1		
	3750	TYKW	20 GRF	0455.0	0520	55.0	2.5	1		
	9400	TYKW	21 GRF	0500.0	0520	60.0	2	1		
	9400	TYKW	5 S	0516.0	0516.2	1.0	7	2		
	9400	TYKW	5 S	0611.0	0611.8	4.0	14	5		
	8800	LEAR	8 S	0611.1	0611.5	1.0	23			
	3100	CRIM	26 FAL	0736.0	1148.0		13			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

DECEMBER 1980

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
					UT	UT	MINUTES	PEAK	MEAN		
04	930	BORD	41	F	1042.2	1042.4	.8	41	2		
	2800	OTTA	20	GRF	1415.0	1435	85.0D	4.2			
	2800	OTTA	20	GRF	1600.0	1622	75.0	4.2	2.1		
	9400	HUAN		S	1644.6	1649.0	13.2	6.3	3.4		0
	2800	OTTA	22	GRF	1910.0	2015	105.0	2.4	1.2		
	245	PALE	8	S	2303.0	2303.0	1.5	48			
[	245	LEAR	8	S	2338.1	2338.3	.5	34			
[	245	PALE	8	S	2338.1	2338.5	.5	50			
05	245	LEAR	43	NS	0222.5	0308.6	48.5	23			
	260	ONDR	44	NS	0824.0E		348.0D	28			
	260	ONDR	44	NS	0824.0E		348.0D	28			
	245	LEAR	43	NS	0905.1	0911.0	50.4	55			
	3750	TYKW	5	S	0008.0	0008.5	1.5	1.5	.5		
	3750	TYKW	5	S	0028.5	0030	4.0	1.5	.5		
[	3750	TYKW	20	GRF	0150.0	0200	40.0	2	1		
[	2800	TYKW	20	GRF	0150.0	0210	60.0	2	1		
[	245	LEAR	8	S	0206.5	0206.8	.5	41			
	245	PALE	8	S	0206.6	0206.6	.2	48			
[	8800	PALE	8	S	0302.0	0302.1	.3	34			
	245	PALE	8	S	0308.1	0308.6	.9	30			
[	3750	TYKW	45	C	0443.0	0444.2	3.0	37	9		
[	4995	LEAR	8	S	0443.8	0444.1	.7	32			
[	9400	TYKW	5	S	0444.0	0444.2	1.0U	7	2 U		
[	8800	LEAR	8	S	0444.1	0444.3	.2	13			
	3750	TYKW	29	PBI	0446.0		15.0	5	2		
	2800	TYKW	5	S	0603.0	0604.3	1.5	3	1		
[	9400	HUAN		S	1124.6	1129.3	12.2	6.7	3.4		R
[	11800	BERN	3	S	1125.3	1126.0	9.0	69.0			
[	8400	BERN	3	S	1125.3	1126.0	9.0	94.0			
[	5200	BERN	3	S	1125.3	1126.0	9.0	30.0			
[	9500	POTS	3	S	1125.5	1126.6	2.5	64			
[	8800	ATHN	4	S/F	1125.6	1127.0	2.7	90			
[	4995	ATHN	8	S	1125.8	1126.0	1.0D	27			
[	10715	DWIN	1	S	1126.0	1326.5	1.0	80	40		
[	15000	KISV	8	S	1126.0	1126.7	2.0	37			
[	9400	HUAN		S	1126.1	1126.8	1.2	68.9	25.2		R
[	9400	HUAN		S	1132.0	1132.3	1.3	18.5	7.3		0
[	15000	KISV	3	S	1132.0	1132.3	1.0	8			
[	9500	POTS	1	S	1132.3	1132.4	1.2	10			
	2800	OTTA	20	GRF	1415.0	1436	105.0D	14.6			
[	2800	OTTA	4	S/F	1430.5	1432.5	5.0	36.0	12.0		
[	2800	OTTA	1	S	1832.0	1835	8.0	2.6	1.3		
	245	PALE	8	S	1846.1	1846.3	1.2	130			
	245	PALE	8	S	1856.1	1856.8	1.5	96			
06	3750	TYKW	21	GRF	0436.0	0450	55.0	2	1		
	3750	TYKW	5	S	0437.0	0437.3	1.5	1.5	.5		
	9400	TYKW	20	GRF	0440.0	0445	30.0	3	1		
[	260	ONDR	42	SER	0928.0	1028.8	153.0	11			
	260	ONDR	42	SER	0928.0	1028.8	153.0	11			
[	5200	BERN	20	GRF	1000.0	1135.2	240.0	23.0			ONLY PAPER REC
[	3200	BERN	20	GRF	1000.0	1135.2	240.0	.0			ONLY PAPER REC
[	3100	CRIM	1	S	1013.5	1014.2	1.0	3	1		
[	3000	POTS	29	PBI	1134.5	1135.3	16.0	7.5			
[	9500	POTS	20	GRF	1134.5	1135.3	5.5	5.3			
[	260	ONDR	8	S	1242.1	1242.2	.2	18			
[	260	ONDR	8	S	1242.1	1242.2	.2	18			
[	260	ONDR	8	S	1305.4	1305.4	.2	24			
[	260	ONDR	8	S	1305.4	1305.4	.2	24			
[	430	KRAK	8	S	1310.0	1310.0	.1	80			
[	9500	POTS	3	S	1315.0	1315.5	2.5	7.2			
[	3000	POTS	3	S	1315.0	1315.5	2.0	6.7			
[	430	KRAK	8	S	1319.5	1319.5	.1	17			
[	430	KRAK	8	S	1320.5	1320.5	.1	150			
[	9400	HUAN		S	1412.6	1432.2	61.9	33.3	10.6		R
[	5200	BERN	3	S	1430.0	1432.3	10.0D	60.0U			ONLY PAPER REC
[	3200	BERN	3	S	1430.0	1432.3	10.0D	.0			ONLY PAPER REC
[	245	SGMR	47	GB	1734.5	1740.0	7.5	790			
[	410	SGMR	8	S	1737.8	1737.8	.2D	15			
[	2695	PENT	4	S/F	2148.0	2151.7	9.0	55.2	13.8		
[	2695	PALE	47	GB	2150.1	2150.8	4.2	70			
[	410	PALE	4	S/F	2150.3	2150.8	3.7	410			
	3750	TYKW	5	S	2338.7	2338.9	.6	7	1.5		
07	1000	TYKW	45	C	0044.0	0044.4	.6	16	5		
[	245	LEAR	8	S	0149.8	0150.1	.5	310			
[	245	PALE	8	S	0149.8	0150.1	.5	420			
[	1000	TYKW	45	C	0150.0	0153.7	10.0	12	1.5		
[	3750	TYKW	45	C	0150.0	0150.4	15.0	3.5	.5		
[	9400	TYKW	20	GRF	0150.0	0155	30.0	3	1.5		
[	1000	TYKW			0150.0	0150.5		10			
[	606	LEAR	8	S	0154.5	0154.8	.3	44			
[	606	PALE	8	S	0154.5	0154.8	.3	48			
[	410	LEAR	8	S	0154.5	0154.6	.5	16			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

DECEMBER 1980

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} MEAN	INT	POLARIZATION OR REMARKS
07	1000	TYKW	8	S	0207.7	0207.8	.3	7	2		
	3750	TYKW	20	GRF	0320.0	0341	130.0	5	2		
	2000	TYKW	20	GRF	0320.0	0341	60.0	3	1.5		
	9400	TYKW	20	GRF	0330.0	0350	60.0	3	1.5		
	3750	TYKW	5	S	0530.0	0539.8	5.0	76	13		
	2000	TYKW	5	S	0530.0	0539.6	5.0	33	9		
	200	HIRA	45	C	0530.5	0539.1	1.6	900	280		R
	100	HIRA	42	SER	0530.6	0547.8	12.0	560			R
	245	LEAR	8	S	0530.6	0538.8	1.5	300			
	1000	TYKW	5	S	0530.7	0539.9	4.0	14	4		
	2695	LEAR	8	S	0530.8	0539.6	1.5	52			
	9400	TYKW	5	S	0539.0	0539.9	3.0	25	8		
	1415	LEAR	8	S	0539.1	0539.6	.9	42			
	4995	LEAR	8	S	0539.1	0539.6	1.2	60			
	1415	MANI	4	S/F	0539.3	0541.0	2.8D	32			
	8800	MANI	4	S/F	0539.3	0541.1	3.5	72			
	8800	LEAR	8	S	0539.6	0539.8	.5	21			
	2695	MANI	4	S/F	0539.6	0541.0	2.5D	59			
	15400	LEAR	8	S	0539.8	0540.0	1.0	17			
	4995	MANI	8	S	0540.0	0541.0	2.0D	70			
	3100	CRIM	26	FAL	0820.0	1100.0		11			
	260	ONDR	46	C	1045.0	1050	6.0	9	7		
	260	ONDR	46	C	1045.0	1050.0	6.0	9	7		
	260	ONDR	45	C	1105.5	1106.0	1.5	13	5		
	260	ONDR	45	C	1105.5	1106	1.5	13	5		
	930	BORD	42	SER	1125.7	1126	4.6	47	5		
	810	KRAK	1	S	1129.0	1129.0	.8	14	7		
	9400	HUAN		S	1613.7	1623.4	44.6	14.7	7.0		R
	2800	OTTA	4	S/F	1617.0	1623.5	11.0	15.2	4.0		
	9400	TYKW	5	S	2230.5	2231.0	1.5	8	3		
	3750	TYKW	5	S	2230.5	2231.0	1.5	5	2		
	2000	TYKW	5	S	2230.5	2231.0U	1.0U	4 U	1.5U		
08	9400	TYKW	5	S	0249.3	0249.8	1.0	8	1.5		
	113	POTS	4	S/F	0733.5	0733.6	.5	500	100		III
	234	POTS	8	S	0733.6	0733.6	.2	100	30		III
	3100	CRIM	26	FAL	0810.0	1200.0		10			
	2800	OTTA	240	R	1450.0	1530	40.0	3.6	1.8		
	2800	OTTA	20	GRF	1545.0	1630	90.0	3.6	2.8		
	2800	OTTA	1	S	1730.0	1731.2	2.0	2.6	1.8		
	2800	OTTA	1	S	2035.0	2037	6.0	9.2	4.4		
09	3750	TYKW	5	S	0125.0	0127	5.0	2.5	1		
	2000	TYKW	5	S	0126.0	0126.6	3.0	2	.5		
	3100	CRIM	20	GRF	0605.0	0800.0	360.0	30	10		
	606	LEAR	8	S	0625.6	0625.6	.5	15			
	245	LEAR	8	S	0625.6	0625.6	1.2	37			
	4995	LEAR	4	S/F	0708.6	0813.1	93.4	25			
	2695	LEAR	4	S/F	0709.3	0813.1	110.2	35			
	15400	LEAR	4	S/F	0732.1	0754.0	54.4	32			
	8800	LEAR	4	S/F	0737.3	0747.1	20.3	20			
	245	LEAR	4	S/F	0742.0	0756.8	17.5	23			
	410	LEAR	4	S/F	0745.6	0747.0	9.9	22			
	430	KRAK	8	S	0937.7	0938.0	.5	50			
	260	ONDR	46	C	1005.0	1011.4	9.0	64	3		
	260	ONDR	46	C	1005.0	1011.4	9.0	64	3		
	430	KRAK	42	SER	1010.7	1012.0	3.0	90			
	245	LEAR	8	S	1010.8	1011.0	.3	150			
	810	KRAK	1	S	1011.3	1011.5	.3	8	3		
	430	KRAK	45	C	1030.0	1032.0	25.0	220	30		
	430	KRAK			1030.0	1034.5		210			
	2800	OTTA	1	S	1441.5	1442.2	2.0	3.8	1.3		
	2800	OTTA	22	GRF	1520.0	1555	60.0	6.4	2.4		
	9400	HUAN		S	1541.3	1559.8	32.2	4.8	1.8		R
10	260	ONDR	44	NS	1004.5D		230.0D	33	3		
	260	ONDR	43	NS	1004.5		230.0D	33	3		
	245	PALE	43	NS	2348.8	2350.1	1.2D	35			
	1000	TYKW	5	S	0212.5	0212.7	.5	10	3		
	9400	TYKW	5	S	0311.0	0314	10.0	4	2		
	3750	TYKW	5	S	0311.0	0314	10.0	2	1		
	204	IZMI	7	C	0740.0	0740.8	1.0	260	140		
	204	IZMI	41	F	0805.0	0807.8	3.5	210			
	430	KRAK	42	SER	0831.5	0841.3	10.0	28			
	430	KRAK	1	S	0941.0	0941.2	.5	12	5		
	204	IZMI	46	C	1003.5	1004.0	1.3	500	300		
	810	KRAK	8	S	1009.5	1009.7	.3	14			
	245	LEAR	8	S	1015.3	1015.8	1.0	59			
	430	KRAK	8	S	1016.0	1016.5	.7	60			
	127	TORN	7	C	1036.8	1037.5	1.2	120	80		
	204	IZMI	5	S	1038.0	1038.4	1.0	220	140		
	204	IZMI	41	F	1052.4	1054.0	2.5	140			
	234	POTS	4	S/F	1053.5	1056.8	.9	150	25		III
	430	KRAK	4	S/F	1127.5	1129.0	1.5	65	7		
	536	ONDR	8	S	1127.8	1127.8	.2	35			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

DECEMBER 1980

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} MEAN	INT	POLARIZATION OR REMARKS
10	536	ONDR	8	S	1127.8	1127.8	.2	35			
	113	POTS	4	S/F	1200.5	1200.9	2.9	175	20		III
	234	POTS	8	S	1202.2	1202.2	.1	150	50		III
	5200	BERN	3	S	1220.5	1220.8	3.0	18.0			ONLY PAPER REC
	3200	BERN	3	S	1220.5	1220.8	3.0	.0			ONLY PAPER REC
	1470	POTS	3	S	1220.8	1221.2	1.7	7.4			
	3000	POTS	3	S	1220.9	1221.0	1.1	13			
	930	BORD	40	F	1300.0	1304	10.0	24	6		
	606	SGMR	4	S/F	1302.0	1303.5	7.3	16			
	810	KRAK	41	F	1302.2	1306.4	11.0	22	9		
	245	SGMR	4	S/F	1302.3	1306.5	9.7D	31			
	410	SGMR	4	S/F	1302.5	1306.0	7.3D	40			
	536	ONDR	8	S	1321.4	1321.4	.2	42			
	536	ONDR	8	S	1321.4	1321.4	.2	42			
	2800	OTTA	240	R	1505.0	1545	40.0	4.2	2.1		
	2800	OTTA	2	S/F	1726.9	1727.9	2.5	6.0	4.4		
	245	LEAR	8	S	2254.0	2254.1	1.8	310			
	245	PALE	47	GB	2254.0	2254.1	.5	690			
	245	PALE	8	S	2255.5	2255.8	.6	240			
	245	LEAR	8	S	2255.5	2255.6	1.0	139			
11	260	ONDR	44	NS	0948.0D	1305.8	256.0D	57			
	260	ONDR	43	NS	0948.0	1305.8	256.0D	57			
	245	SGMR	43	NS	1305.0	1845.0	480.0D	60			
	245	PALE	43	NS	1841.0	0249.1	532.0D	1000			
	200	HIRA	44	NS	2140.0E	0520	580.0D	170	20		ML
	245	LEAR	43	NS	2152.0	0249.0	771.0D	770			
	9400	TYKW	45	C	0022.0	0023.2	9.0	10	3		
	9400	TYKW	5	S	0124.0	0125.5	4.0	3	1		
	3750	TYKW	5	S	0124.0	0125.7	4.0	1.5	.5		
	3750	TYKW	20	GRF	0130.0	0200	50.0	2	1		
	9400	TYKW	21	GRF	0135.0	0145	45.0	2	1		
	9400	TYKW	5	S	0139.3	0139.4	.5	4	1.5		
	1000	TYKW	45	C	0203.0	0204.1	3.0	1.5	.5		
	1000	TYKW	5	S	0209.3	0209.4	.5	10	3.5		
	9100	GORK			0711.5	0718.8		7			
	9100	GORK	41	F	0711.5	0711.8	11.0	7			
	15000	KISV	3	S	0718.0	0719	2.0	11			
	245	LEAR	4	S/F	0830.1	0830.8	2.5	25			
	536	ONDR	42	SER	0942.0	0942.0	101.0	22			
	536	ONDR	42	SER	0942.0	0942	101.0	22			
	3100	CRIM	24	R	1110.0	1130.0		4			
	113	POTS	8	S	1123.2	1123.2	.1	100	30		
	536	ONDR	42	SER	1204.6	1306.2	102.0	64			
	536	ONDR	42	SER	1204.6	1306.2	102.0	64			
	5200	BERN	3	S	1215.2	1218.0	13.0	16.0			
	11800	BERN	3	S	1216.9	1218.1	8.0	11.0			
	8400	BERN	3	S	1216.9	1218.2	9.0	22.0			
	9400	HUAN		S	1217.6	1218.2	12.1	16.2	7.5		0
	2800	OTTA	23	GRF	1445.0	1540	230.0	14.2	6.0		
	9400	HUAN		S	1526.7	1537.2	105.5	11.3	8.5		
	2800	OTTA	3	S	1532.0	1532.2	1.5	60.0	15.0		
	930	BORD	8	S	1539.2	1539.3	.1	23	1		
	9400	HUAN		S	1742.1	1744.8	18.9	8.1	3.1		0
	245	PALE	47	GB	1750.6	1751.1	1.5	810			
	2800	OTTA	240	AR	1900.0	1920	20.0	12.5			
	2800	OTTA	3	S	1914.2	1915.5	2.5	18.0	8.0		
	9400	HUAN		S	1914.7	1915.8	2.0	17.6	12.6		R
	9400	TYKW	45	C	2244.0U	2246 U	5.0U	25 U	12 U		RAIN
	8800	PALE	4	S/F	2245.0	2246.6	2.3	35			
	15400	PALE	8	S	2245.0	2245.1	2.0	37			
	9400	TYKW	45	C	2302.0	2306.8	20.0	80	20		RAIN
	8800	PALE	47	GB	2302.6	2306.8	14.2	75			
	15400	PALE	47	GB	2302.6	2306.6	7.0	139			
	15400	LEAR	47	GB	2302.6	2306.8	6.5	119			
	8800	LEAR	4	S/F	2302.8	2306.8	6.0	59			
	9400	TYKW	29	PBI	2322.0		30.0	12	6		
12	410	LEAR	43	NS	0325.0	0342.5	438.0D	51			
	200	GORK	44	NS	0649.0D		281.0D		30		
	100	GORK	44	NS	0650.0E		280.0D		10		
	204	IIMI	44	NS	0700.0E		300.0D	50			
	127	TORN	44	NS	0720.0E	0743.8	430.0D	2300	10		V2
	260	ONDR	44	NS	0820.0E		333.0D	94	11		
	260	ONDR	44	NS	0820.0E		333.0D	94	11		
	245	SGMR	43	NS	1210.0	1420.8	535.0D	260			
	410	SGMR	43	NS	1210.0	1807.3	535.0D	13			
	245	PALE	43	NS	1719.0	1751.6	615.0D	99			
	200	HIRA	44	NS	2140.0E	0120	580.0D	5	3		WL
	3750	TYKW	20	PRE	0004.0	0004.8	11.0	3	2		
	9400	TYKW	45	C	0013.0	0016.4	27.0	280	35		RAIN
	2000	TYKW	45	C	0015.0	0022.1	10.0	8	3		
	3750	TYKW	45	C	0015.0	0015.9	35.0	56	10		
	2000	TYKW	21	GRF	0015.0	0110	115.0	4	2		
	15400	LEAR	47	GB	0015.1	0016.3	25.2	570			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

DECEMBER 1980

DAY OF MONTH	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	POLARIZATION OR REMARKS
12	8800	LEAR	4 S/F	0015.3	0016.3	25.0	300			
	15400	PALE	47 GB	0015.5	0016.3	12.8	520			
	8800	PALE	4 S/F	0015.5	0016.3	13.5	290			
	2695	PALE	8 S	0015.6	0016.1	.5	77			
	2695	LEAR	8 S	0015.6	0016.0	.5	72			
	4995	PALE	47 GB	0015.8	0016.3	7.5	53			
	4995	LEAR	4 S/F	0016.1	0016.3	24.2	63			
	9400	TYKW	30 PBI	0040.0		120.0	20	4		
	3750	TYKW	29 PBI	0050.0		80.0	8	3		
	1000	TYKW	20 GRF	0105.0	0140	65.0	3	1.5		
	9400	TYKW	5 S	0144.5	0144.8	1.0	8	2		
	3750	TYKW	21 GRF	0310.0	0410	140.0	4	2		
	606	LEAR	8 S	0335.3	0335.5	.2	21			
	9400	TYKW	45 C	0343.0	0348.4	22.0	34	8		
	8800	LEAR	4 S/F	0343.1	0348.3	11.0	45			
	15400	LEAR	4 S/F	0346.0	0348.3	3.8	39			
	9400	TYKW	28 PRE	0456.0	0458	4.0	5	2		
	3750	TYKW	28 PRE	0456.7	0457.1	4.3	2	1.5		
	9400	TYKW	45 C	0500.0	0502.3	5.0	330	100		
	8800	LEAR	4 S/F	0500.1	0502.3	15.0	350			
	15400	LEAR	47 GB	0500.6	0502.1	12.7	660			
	3750	TYKW	45 C	0501.0	0502.6	4.0	44	9		
	4995	LEAR	4 S/F	0501.1	0502.3	4.0	66			
	35000	NAGO	5 S	0502.0	0502	1.0	125			
	35000	NAGO	29 PBI	0503.0	0506	12.0	20			
	2000	TYKW	5 S	0503.0	0503.2	2.0	2.5	1		
	3750	TYKW	29 PBI	0505.0		23.0	6	3		
	9400	TYKW	29 PBI	0505.0		25.0U	34	12 U		RAIN
	15000	KISV	1 S	0623.0	0624	2.0	9			
	245	LEAR	8 S	0629.3	0629.6	1.7	460			
	650	GORK	22 GRF	0651.0E	0818.0	280.0E	13			
	15000	KISV	1 S	0655.0	0655.5	2.0	5			
	100	GORK	8 S	0743.4	0743.8	1.2	600 D			
	234	POTS	4 S/F	0743.5	0743.8	.7	575	25		III
	113	POTS	4 S/F	0743.6	0743.8	.8	315	30		III
	810	KRAK	41 F	0824.0	0824.6	.7	17			
	8800	ATHN	4 S/F	0827.1	0832.1	20.7	28			
	5200	BERN	20 GRF	0829.0	0832.2	9.0	16.0			
	9100	GORK	21 GRF	0830.0	0839.3	44.5	15			
	11800	BERN	20 GRF	0830.0	0832.2	5.0	79.0			
	8400	BERN	20 GRF	0830.0	0832.2	6.0	52.0			
	9500	POTS	3 S	0830.0	0832.3	4.5	32			
	9100	GORK	1 S	0830.9	0832.2	2.9	30	15		
	15000	KISV	4 S/F	0831.0	0832	3.0	26			
	19600	BERN	20 GRF	0831.3	0833.0	4.0	56.0			
	810	KRAK	8 S	0940.0	0940.0	.1	9			
	810	KRAK	8 S	1040.2	1040.5	.3	47			
	2800	OTTA	240 R	1425.0	1510	45.0	4.8	2.4		
	2800	OTTA	240AR	1520.0	1550	30.0	11.8	5.9		
	4995	SGMR	4 S/F	1535.1	1538.8	9.0D	160			
	2695	SGMR	4 S/F	1536.8	1538.8	7.0D	59			
	8800	SGMR	4 S/F	1537.1	1538.8	6.2D	170			
	15400	SGMR	4 S/F	1537.5	1539.0	4.3	180			
	2800	OTTA	3 S	1538.0	1539.2	10.0	61.8	16.0		
	2800	OTTA	21 GRF	1650.0	1716	290.0	26.6	13.3		
	1415	SGMR	47 GB	1651.3	1708.6	34.7D	63			
	2695	SGMR	47 GB	1651.8	1657.3	32.8D	57			
	4995	SGMR	47 GB	1652.0	1719.6	32.6D	83			
	15400	SGMR	47 GB	1653.0	1719.6	35.1	119			
	2800	OTTA	4 S/F	1653.0	1657.3	17.0	50.0			
	8800	SGMR	47 GB	1653.5	1719.8	35.8D	160			
	606	SGMR	47 GB	1654.6	1656.6	34.4D	200			
	410	SGMR	47 GB	1655.3	1656.1	29.7D	220			
	245	SGMR	47 GB	1657.0	1707.3	28.0D	690			
	2800	OTTA	3 S	1718.8	1719.7	2.0	24.0	9.0		
	2800	OTTA	20 GRF	1945.0	1957	30.0	5.2	2.0		
	3750	TYKW	5 S	2302.0	2303.4	10.0	6	2		
	9400	TYKW	5 S	2353.0	2355.7	10.0	11	3.5		
	3750	TYKW	21 GRF	2354.0	0010	40.0	5	2.5		
	2000	TYKW	5 S	2355.0	2356.3	3.0	11	6		
	3750	TYKW	5 S	2355.0	2357	4.0	3	1		
	2000	TYKW	29 PBI	2358.0		30.0	3	1.5		
13	127	TORN	44 NS	0720.0E	1057.8	430.0D	90	4.8		V1
	260	ONDR	44 NS	0815.0E		300.0D	54			
	260	ONDR	44 NS	0815.0E		300.0D	54			
	200	GORK	44 NS	1009.0D		84.0D		5		
	245	SGMR	43 NS	1210.0	1324.3	535.0D	24			
	3750	TYKW	5 S	0038.0	0040.2	10.0	3	1.5		
	9400	TYKW	5 S	0134.5	0134.8	3.5	8	3		
	3750	TYKW	28 PRE	0220.0	0304	44.0	5	3		
	3750	TYKW	45 C	0304.0	0309.4U	14.0	15 U	10		
	8800	LEAR	4 S/F	0304.5	0309.5	30.3	35			
	2695	LEAR	4 S/F	0305.5	0305.6	19.6	10			
	15400	LEAR	4 S/F	0305.5	0309.0	21.6	26			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

DECEMBER 1980

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} MEAN	INT	POLARIZATION OR REMARKS
13	4995	LEAR	4	S/F	0305.5	0305.6	24.5	16			
	9400	TYKW	21	GRF	0300.0E	0309.5	55.0D	22	6 D		
	3750	TYKW	29	PBI	0318.0		55.0	9	4		
	9400	TYKW	5	S	0330.0	0331.5	3.0	2	1		
	9400	TYKW	5	S	0341.0	0342.3	3.0	3	1		
	9400	TYKW	5	S	0345.0	0346.4	6.0	4	1.5		
	3750	TYKW	30	PBI	0413.0		85.0	9	5		
	9400	TYKW	45	C	0416.7	0421.5	5.5D	11	5 D		
	3750	TYKW	28	PRE	0426.0	0441	20.0	6	2.5		
	9400	TYKW	28	PRE	0435.0	0440	13.0	4	2		
	2800	TYKW	28	PRE	0436.0	0440.0	10.0	5	2		
	1000	TYKW	45	C	0440.0	0440.1	2.0	5	1		
	3750	TYKW	45	C	0446.0	0458.0	27.0	20	11		
	2800	TYKW	45	C	0446.0	0451.0	14.0	13	6		
	8800	LEAR	4	S/F	0447.0	0457.0	24.0	27			
	4995	LEAR	4	S/F	0447.0	0457.6	16.3	19			
	2695	LEAR	4	S/F	0447.0	0450.3	11.7	16			
	15400	LEAR	4	S/F	0448.0	0458.0	14.0	18			
	9400	TYKW	45	C	0448.0	0458.0	25.0	21	12		
	1000	TYKW	5	S	0450.7	0451.0	2.0	5	1.5		
	2800	TYKW	29	PBI	0500.0		20.0	3	1.5		
	9400	TYKW	30	PBI	0513.0		75.0	8	3		
	2800	TYKW	20	GRF	0525.0	0555	75.0	4.5	2		
	9400	TYKW	45	C	0543.0	0544.2	25.0	7	2.5		
	15400	LEAR	8	S	0544.0	0544.3	.5	20			
	3750	TYKW	20	GRF	0545.0	0551	40.0	6	3		
	1000	TYKW	5	S	0556.7	0557.0	.7	10	3		
	3100	CRIM	20	GRF	0745.0	0755.0	14.0	5	2		
	19600	BERN	3	S	0847.3	0921.2	65.0	150.0U			
	5200	BERN	20	GRF	0851.0	0902.3	60.0	12.0			
	8400	BERN	3	S	0856.5	0921.1	55.0	61.0			
	11800	BERN	3	S	0857.2	0921.1	55.0	120.0			
	9100	GORK	23	GRF	0858.3	0923.8	47.0	19			
	9100	GORK	1	S	0859.0	0859.4	1.1	8	4		
	10715	DWIN	3	S	0918.0	0921	7.0	110	50		
	15000	KISV	4	S/F	0918.0	0921	6.0	90			
	9500	POTS	3	S	0918.5	0921.0	10.0	64			
	8800	ATHN	4	S/F	0919.0	0921.5	8.3	73			
	9100	GORK	3	S	0920.4	0921.1	2.8	45	20		
	15400	LEAR	8	S	0920.5	0921.1	1.0	100			
	8800	LEAR	8	S	0920.0	0921.1	.5	52			
	15000	KISV	29	PBI	0924.0E	0924	26.0D	15			
	930	BORD	8	S	1040.7	1040.8	.2	28	1		
	2800	OTTA	240	R	1430.0	1437	7.0	3.2			
	9400	HUAN		S	1508.0	1514.1	27.1	11.4	7.0		R
	2800	OTTA	20	GRF	1511.0	1513	15.0	5.4	2.7		
	2800	OTTA	1	S	1530.9	1531	1.0	2.6	1.3		
	9400	HUAN		S	1935.2	2011.4	62.1	19.5	5.7		E
	8800	PALE	4	S/F	2009.3	2010.1	3.3	24			
	15400	PALE	8	S	2009.5	2009.6	.5	16			
	2695	PENT	1	S	2039.8	2040.1	1.5	2.6	1.3		
	245	LEAR	8	S	2246.1	2246.6	.9	54			
	245	LEAR	8	S	2252.0	2252.0	.6	72			
	9400	TYKW	45	C	2342.0	2344.6	7.0	20	8		
	8800	LEAR	4	S/F	2344.3	2346.6	3.0	25			
	8800	PALE	4	S/F	2344.3	2344.6	3.0	24			
	9400	TYKW	29	PBI	2349.0		10.0	6	3		
14	200	GORK	44	NS	0634.0E		298.0D		5		
	127	TORN	44	NS	0720.0E	1443.1	430.0D	40	3.3		V0
	260	ONDR	44	NS	0820.0E		304.0D	78			
	260	ONDR	44	NS	0820.0E		304.0D	78			
	245	SGMR	43	NS	1211.0E	1354.0	156.5U	52			
	200	HIRA	44	NS	2141.0E	0415	580.0D	190	15		WL
	100	HIRA	44	NS	2141.0E	0221	290.0D	300	15		SL
	245	LEAR	43	NS	2304.0	0013.8	692.0D	260			
	606	LEAR	4	S/F	0005.5	0028.6	41.6	21			
	3750	TYKW	21	GRF	0018.0	0022	60.0	6	2.5		
	9400	TYKW	21	GRF	0018.0	0021	70.0	12	4		
	2800	TYKW	20	GRF	0018.0U	0022 U	60.0U	3 U	1.5U		
	8800	LEAR	47	GB	0018.8	0020.8	17.5	26			
	8800	PALE	4	S/F	0020.6	0022.1	2.2	27			
	15400	LEAR	47	GB	0020.6	0022.0	.2	16			
	4995	LEAR	47	GB	0020.6	0021.8	.2	13			
	3750	TYKW	5	S	0051.0	0053	20.0	3.5	1.5		
	9400	TYKW	45	C	0111.5	0113.2	2.5	12	2.5		
	410	LEAR	47	GB	0220.1	0222.3	2.4	190			
	606	LEAR	4	S/F	0220.0	0222.6	3.0	22			
	9400	TYKW	45	C	0221.0	0222.5	6.0	4	1		
	3750	TYKW	5	S	0221.0	0222.6	3.5	14	2		
	2800	TYKW	5	S	0222.0	0222.6	3.0	11	3		
	1000	TYKW	5	S	0222.0	0222.6	3.0	7	1.5		
	606	PALE	8	S	0222.3	0222.6	.3	25			
	2695	LEAR	8	S	0222.3	0222.5	.3	16			
	15400	PALE	4	S/F	0227.6	0229.5	3.0	35			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

DECEMBER 1980

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
					UT	UT	MINUTES	PEAK	MEAN		
14	9400	TYKW	5	S	0240.0	0241	10.0	2	1		
	9400	TYKW	45	C	0302.0	0307 U	12.0	45 D	15 D		
	2000	TYKW	5	S	0302.0	0305 U	8.0	10 D	5 D		
	3750	TYKW	45	C	0303.0E	0305.4	10.0D	54	20 D		
	1000	TYKW	45	C	0303.0E	0303.1	7.0D	3	1 D		
	4995	LEAR	4	S/F	0303.1	0305.5	19.5	86			
	4995	PALE	4	S/F	0303.1	0305.5	5.5	78			
	2695	PALE	47	GB	0303.1	0305.6	7.7	58			
	1415	PALE	8	S	0303.1	0303.5	.5	17			
	1415	MANI	4	S/F	0303.3	0305.8	4.0D	03			
	2695	LEAR	4	S/F	0303.3	0305.5	5.0	54			
	4995	MANI	4	S/F	0303.3	0306.0	6.0D	65			
	8800	MANI	4	S/F	0304.0	0307.0	8.6	76			
	2695	MANI	4	S/F	0304.0	0305.6	5.5D	47			
	8800	LEAR	4	S/F	0304.3	0306.6	18.3	69			
	8800	PALE	47	GB	0305.0	0306.6	2.6	45			
	15400	LEAR	8	S	0306.6	0307.0	.5	22			
	2000	TYKW	29	PBI	0310.0		95.0	4	2		
	3750	TYKW	29	PBI	0313.0		95.0	11	6		
	9400	TYKW	30	PBI	0314.0		95.0	15	6		
	245	LEAR	8	S	0331.1	0331.8	1.0	70			
	410	LEAR	8	S	0331.5	0331.8	.8	11			
	9400	TYKW	5	S	0348.0	0348.8	2.0	2	1		
	9400	TYKW	45	C	0351.0	0352.6	4.0	3	1		
	9400	TYKW	5	S	0408.0	0410.4	7.0	9	3		
	9400	TYKW	5	S	0432.0	0433.4	8.0	7	2		
	3750	TYKW	45	C	0457.0	0507.3	40.0	5	1.5		
	9400	TYKW	45	C	0459.0	0506.2	12.0	16	4		
	2000	TYKW	20	GRF	0510.0	0521	45.0	1	.5		
	9400	TYKW	29	PBI	0511.0		30.0	6	3		
	9400	TYKW	5	S	0547.0	0547.3	1.0	6	2		
	3750	TYKW	5	S	0547.0	0547.4	1.0	4	1.5		
	2000	TYKW	45	C	0602.2	0603.4	1.5	7	2		
	9100	GORK	23	GRF	0715.0	0947.6	188.0	26			
	2950	GORK	20	GRF	0722.5	0821.0	240.0E	16			
	15000	KISV	40	F	0730.0	0813	60.0	9			
	127	TORN	27	RF	0842.5	0847.0	9.0	20	10		
	15000	KISV	46	C	0940.0	0945	8.0	57			
	8800	ATHN	4	S/F	0942.1	0944.8	8.0	110			
	8400	BERN	4	S/F	0942.6	0944.7	30.0	116.0			
	19600	BERN	4	S/F	0942.6	0945.0	8.0	57.0			
	11800	BERN	4	S/F	0942.6	0945.0	27.0	91.0			
	10715	DWIN	45	C	0943.0	0945	7.0	120	60		
	9500	POTS	4	S/F	0943.0	0944.7	7.0	80			
	9100	GORK	4	S/F	0943.3	0944.6	3.9	85			
	15400	LEAR	8	S	0944.3	0944.6	1.2	55			
	8800	LEAR	4	S/F	0944.3	0944.6	2.8	110			
	2695	LEAR	8	S	0944.5	0944.6	.1	11			
	4995	LEAR	8	S	0944.5	0944.8	1.1	51			
	15000	KISV	3	S	1023.0	1024	2.0	8			
	5200	BERN	1	S	1050.0	1053.7	10.0	18.0			
	3200	BERN	1	S	1050.0	1053.7	10.0	.0			ONLY PAPER REC
	11800	BERN	1	S	1050.8	1053.7	10.0	37.0			
	8400	BERN	1	S	1051.2	1053.7	10.0	24.0			
	15000	KISV	4	S/F	1052.0	1054	5.0	35			
	8800	ATHN	8	S	1052.1	1052.8	1.7	25			
	9500	POTS	23	GRF	1304.0	1312.5	15.0	26			
	9400	HUAN		S	1304.7E	1311.4U	19.3	15.0	10.0		R
	4995	SGMR	4	S/F	1312.3	1312.8	3.8D	09			
	8800	SGMR	4	S/F	1312.3	1313.1	4.2	25			
	9400	HUAN		C	1312.5	1312.8	2.5	16.7	10.8		R
	9400	HUAN			1312.5	1314.4		18.3			
	15400	SGMR	4	S/F	1359.0	1400.1	4.0	11			
	9400	HUAN		S	1402.6	1403.2	3.2	16.7	5.6		R
	8800	SGMR	4	S/F	1403.0	1403.3	2.1D	33			
	4995	SGMR	8	S	1403.0	1403.3	1.8D	29			
	2800	OTTA	21	GRF	1440.0	1507	70.0	9.6	4.6		
	9400	HUAN		S	1450.3	1455.3	9.3	23.4	9.3		R
	2800	OTTA	4	S/F	1504.0	1505.2	3.0	24.2	9.0		
	4995	SGMR	4	S/F	1504.3	1505.3	2.2	11			
	2830	OTTA	240	R	1558.0	1610	12.0	5.4	2.7		
	9400	HUAN		S	1632.4	1634.7	7.7	8.3	3.3		0
	9400	HUAN		S	1729.7	1749.6	54.3	36.7	16.4		R
	15400	SGMR	4	S/F	1735.0	1743.1	15.0	18			
	4995	SGMR	4	S/F	1738.6	1742.3	11.4D	13			
	8800	SGMR	4	S/F	1739.5	1742.0	10.5D	49			
	2800	OTTA	1	S	1740.0	1743	10.0	5.2	2.6		
	9400	HUAN		S	1740.0	1742.3	6.2	43.4	15.0		R
	2800	OTTA	20	GRF	2000.0	2050	70.0	6.6	4.6		
	9400	HUAN		C	2201.7	2209.6	16.6	83.4	30.4		R
	4995	LEAR	4	S/F	2202.5	2209.3	12.8	65			
	8800	PALE	8	S	2202.8	2202.8	.2	25			
	8800	LEAR	4	S/F	2205.6	2209.6	9.5	100			
	2695	LEAR	4	S/F	2206.6	2209.3	8.9	31			
	245	LEAR	8	S	2234.8	2236.6	1.3	240			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

DECEMBER 1980

DAY OF MONTH	FREQUENCY	STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
				UT	UT	MINUTES	PEAK	MEAN		
14	2695	PENT	4 S/F	2235.0	2235.3	4.0	19.6	9.0		
	2000	TYKW	45 C	2235.0	2235.4	10.0U	30 U	5 U		
	3750	TYKW	45 C	2235.0	2235.4	20.0	20	3		
	9400	TYKW	45 C	2235.0	2245	20.0	12	4		
	1000	TYKW	45 C	2235.0	2243.5	10.0	40	10		
	606	LEAR	4 S/F	2235.1	2235.3	3.7	370			
	2695	LEAR	8 S	2235.1	2235.3	.5	23			
	4995	LEAR	8 S	2235.3	2235.3	.2	16			
	410	LEAR	8 S	2235.8	2236.0	.3	16			
	245	LEAR	4 S/F	2242.8	2245.0	3.3	97			
	606	LEAR	8 S	2243.1	2243.3	.4	400			
	410	LEAR	8 S	2243.1	2243.3	.5	43			
	245	LEAR	8 S	2253.0	2254.1	.7	57			
	3750	TYKW	21 GRF	2302.0	0020	165.0	9	4.5		
	2000	TYKW	21 GRF	2310.0	2345	150.0	5	2.5		
	3750	TYKW	20 GRF	2321.0	2342	30.0	6	3		
15	127	TORN	44 NS	0720.0E	1003.1	430.0D	60	40		V1
	260	ONDR	44 NS	0903.0E		288.0D	57	6		
	260	ONDR	44 NS	0903.0E		288.0D	57	6		
	234	POTS	44 NS	1151.5E	1228.0	114.0D	72			
	245	SGMR	43 NS	1212.0	1326.3	534.0D	139			
	245	PALE	43 NS	1745.0	0021.6	590.0D	350			
	410	PALE	43 NS	1745.0	0228.?	590.0D	150			
	200	HIRA	44 NS	2142.0E	2253	580.0D	70	20		ML
	100	HIRA	44 NS	2142.0E	2228	580.0D	75	19		WL
	2000	TYKW	5 S	0004.0	0005 U	1.0D	4 D	2 D		
	3750	TYKW	5 S	0004.0	0005.1	7.0	5	2		
	9400	TYKW	5 S	0008.0	0008.4	4.0	6	2		RAIN
	3750	TYKW	45 C	0049.0	0133.4	54.0	5	3		
	9400	TYKW	5 S	0049.0	0052.4	8.0	30	10		
	8800	LEAR	8 S	0051.3	0052.3	1.8	36			
	4995	LEAR	8 S	0051.8	0052.3	1.0	17			
	9400	TYKW	29 PBI	0057.0		50.0	7	3		
	2000	TYKW	45 C	0133.0	0133.5	1.0	5	1.5		
	1000	TYKW	5 S	0133.0	0133.5	1.5	1.5	.5		
	3750	TYKW	21 GRF	0150.0	0204	70.0	10	5.5		
	2000	TYKW	21 GRF	0150.0	0205	70.0	6	2		
	3750	TYKW	5 S	0251.0	0251.7	1.5	9	1.5		
	1000	TYKW	5 S	0251.3	0251.8	1.0	4	1		
	2000	TYKW	45 C	0251.3	0251.7	.7	10	3		
	3750	TYKW	21 GRF	0310.0	0350	170.0	10	5		
	2000	TYKW	20 GRF	0310.0	0321	170.0	6	2		
	3750	TYKW	5 S	0314.0	0314.3	.7	5	2		
	3750	TYKW	5 S	0427.0	0427.5	4.0	5	1.5		
	410	LEAR	8 S	0603.0	0603.1	1.0	51			
	2950	GORK	21 GRF	0639.0	0845.5	290.0	40			
	9100	GORK	23 GRF	0739.0	0838.5	205.0	55			
	3100	CRIM	25 R	0800.0	0830.0		10			
	3200	BERN	1 S	0826.2	0835.2	123.0	.0			ONLY PAPER REC
	950	GORK	20 GRF	0829.0	0836.0	137.0	6			
	8800	ATHN	4 S/F	0829.5	0835.3	30.1	31			
	5200	BERN	1 S	0830.0	0836.8	120.0	48.0			
	9500	POTS	22 GRF	0830.0	0845.3	95.0	51			
	3000	POTS	29 PBI	0830.0	0835.4	121.0	84			
	3100	CRIM	3 S	0830.0	0836.0	13.0	71	20		
	15000	KISV	20 GRF	0830.0	0900	60.0	20			
	3100	CRIM	29 PBI	0830.0	0843.0		27			
	9100	GORK	1 S	0830.2	0830.8	1.5	8	4		
	8800	LEAR	47 GB	0830.6	0845.1	31.5	80			
	1470	POTS	29 PBI	0830.7	0838.5	91.0	384			
	4995	LEAR	4 S/F	0831.1	0835.1	28.2	87			
	1415	ATHN	4 S/F	0831.3	0836.6	9.8D	490			
	2695	ATHN	4 S/F	0831.5	0835.5	28.3D	58			
	2695	LEAR	4 S/F	0832.8	0835.0	16.5	80			
	2950	GORK	3 S	0833.0	0835.0	3.0	90			
	9100	GORK	1 S	0833.9	0834.8	3.5	23	12		
	2650	DWIN	1 S	0834.0	0835	6.0	50	25		
	9100	GORK	1 S	0843.4	0844.6	3.4	26	13		
	15400	LEAR	4 S/F	0844.6	0850.6	13.0	26			
	4995	LEAR	8 S	0906.8	0907.1	.3	28			
	5200	BERN	3 S	1208.2	1210.7	16.0	18.0			
	3200	BERN	3 S	1209.3	1210.7	15.0	.0			ONLY PAPER REC
	113	POTS	42 SER	1213.0	1213.2	9.5	350	6		III
	260	ONDR	46 C	1311.6	1312.7	3.0	189	20		
	260	ONDR	46 C	1311.6	1312.7	3.0	189	20		
	234	POTS	41 F	1312.1	1313.7	2.3	3800	60		III
	113	POTS	41 F	1312.2	1313.6	2.2	500	5		III
	9400	HUAN	S	1406.5	1423.0	23.3	7.8	2.6		0
	245	SGMR	47 GB	1419.0	1422.8	6.0	510			
	2800	OTTA	4 S/F	1420.3	1421.5	4.7	18.6			
	9400	HUAN	S	1420.3	1421.5	1.9	21.8	9.6		0
	4995	SGMR	4 S/F	1420.5	1421.6	4.0D	15			
	1415	SGMR	4 S/F	1420.5	1421.1	9.0D	11			
	8800	SGMR	4 S/F	1420.5	1421.5	2.5D	34			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

DECEMBER 1980

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
					UT	UT	MINUTES	PEAK	MEAN		
15	2695	SGMR	4	S/F	1420.5	1421.0	6.5D	16			
	930	BORD	41	F	1420.7	1421.4	2.7	216	3		
	15400	SGMR	8	S	1421.1	1421.3	.9D	31			
	606	SGMR	8	S	1422.3	1423.1	1.2D	42			
	410	SGMR	8	S	1423.1	1423.3	.4D	13			
	2800	OTTA	31	ABS	1425.0	1437	35.0	-8.0	-4.0		
	9400	HUAN		S	1439.7	1523.0	64.9	15.6	5.6		R
	2800	OTTA	22	GRF	1513.0	1520	77.0	3.8			
	4995	SGMR	4	S/F	1516.6	1520.1	5.0D	10			
	15400	SGMR	4	S/F	1516.8	1520.1	4.7	30			
	8800	SGMR	4	S/F	1517.0	1520.1	4.6D	40			
	9400	HUAN		S	1518.4	1519.8	3.6	29.6	13.6		R
	9400	HUAN		S	1558.6	1603.8	19.9	6.2	1.7		0
	2800	OTTA	240	R	1635.0	1700	25.0	5.4	1.8		
	9400	HUAN		S	1652.7	1703.6	32.5	14.0	6.4		R
	9400	HUAN		S	1750.4	1755.6	12.6	9.3	3.7		R
	2800	OTTA	22	GRF	1800.0	1837	50.0	8.0	2.7		
	9400	HUAN		S	1835.3	1842.7	22.7	7.8	4.8		0
	4995	PALE	8	S	1835.6	1836.8	1.4	24			
	8800	PALE	4	S/F	1835.6	1841.6	9.7	27			
	15400	PALE	8	S	1835.6	1836.8	1.4	31			
	9400	HUAN		S	1914.5	1926.8	97.3	32.7	11.4		R
	2800	OTTA	28	PRE	1915.0	1916.8	5.0	9.2			
	1415	SGMR	4	S/F	1916.0	1922.8	23.6D	66			
	4995	SGMR	4	S/F	1920.0	1922.8	23.0D	160			
	2800	OTTA	46F	C	1920.0	1922.9	20.0	1540	42.0		
	8800	SGMR	4	S/F	1920.1	1921.5	21.4D	130			
	2695	PALE	47	GB	1920.3	1922.8	18.3	170			
	2695	SGMR	4	S/F	1920.3	1922.8	21.0D	150			
	4995	PALE	47	GB	1920.5	1922.8	13.8	150			
	9400	HUAN			1920.8	1922.4		124.5			
	9400	HUAN			1920.8	1923.8		126.0			
	9400	HUAN		C	1920.8	1921.5	4.3	98.0	63.8		R
	15400	SGMR	4	S/F	1921.0	1921.3	19.0	46			
	8800	PALE	47	GB	1921.0	1923.8	12.8	220			
	1415	PALE	47	GB	1921.1	1923.1	15.9	64			
	606	SGMR	4	S/F	1921.5	1923.1	13.5D	130			
	606	PALE	47	GB	1921.6	1923.3	12.4	200			
	245	SGMR	4	S/F	1921.6	1924.1	4.4D	370			
	410	SGMR	4	S/F	1921.8	1924.0	12.5D	62			
	15400	PALE	47	GB	1921.8	1931.1	11.3	110			
	410	PALE	47	GB	1921.8	1922.8	.3	180			
	245	PALE	8	S	1922.1	1922.8	1.0	270			
	9400	HUAN		C	1929.3	1931.2	6.4	105.8	41.5		R
	2800	OTTA	29	PBI	1940.0	1940	95.0	17.4	5.8		
	9400	HUAN		S	2131.6	2136.2	10.4	9.3	3.1		0
	9400	HUAN		S	2218.7	2221.0	4.5	15.6	6.7		R
	8800	PALE	4	S/F	2219.8	2221.1	2.3	37			
	1000	TYKW	5	S	2320.7	2321.1	.8	10	3		
	9400	TYKW	45	C	2330.0	2351.7	33.0	15	4		
	3750	TYKW	45	C	2330.0	2352	35.0	5	2		
16	245	LEAR	43	NS	0020.0	0021.6	626.0	280			
	606	LEAR	43	NS	0145.0	0149.8	97.3	160			
	410	LEAR	43	NS	0145.0	0149.5	173.0	119			
	410	LEAR	43	NS	0546.8	0547.1	.3D	32			
	234	POTS	44	NS	0700.0E	1241.0	442.0D	60			
	204	IZMI	44	NS	0700.0E		300.0D	45			
	127	TORN	44	NS	0720.0E	1141.0	430.0D	3600	33		V1
	260	ONDR	44	NS	0843.0E		319.0D	54	10		
	260	ONDR	44	NS	0843.0E		319.0D	54	10		
	245	SGMR	43	NS	1213.0	1259.8	533.0D	470			
	410	SGMR	43	NS	1213.0	1232.0	533.0D	64			
	200	HIRA	44	NS	2142.0E	0649	580.0D	20	5		ML
	100	HIRA	44	NS	2142.0E	0227	580.0D	100	10		ML
	9400	TYKW	45	C	0007.0	0008.3	15.0	7	3		
	3750	TYKW	45	C	0007.0	0008.6	20.0	11	4		
	4995	PALE	8	S	0007.3	0008.6	2.0	15			
	9400	TYKW	5	S	0036.0	0045	19.0	5	3		
	3750	TYKW	21	GRF	0039.0	0046	115.0	5	2.5		
	1000	TYKW	5	S	0056.4	0056.6	.5	4.5	1.5		
	1000	TYKW	5	S	0057.4	0057.5	.6	3	1.5		
	1000	TYKW	8	S	0059.6	0059.7	.3	3	1		
	9400	TYKW	45	C	0101.0	0101.5	2.0	148	50		
	3750	TYKW	5	S	0101.0	0101.6	3.0	20	6		
	2000	TYKW	5	S	0101.0	0101.8	6.0	9	2.5		
	8800	PALE	8	S	0101.1	0101.3	.2D	170			
	8800	LEAR	4	S/F	0101.1	0101.5	2.2	160			
	1000	TYKW	45	C	0101.2	0101.4	3.5	90	4		
	4995	LEAR	8	S	0101.3	0101.3	.7	32			
	4995	PALE	8	S	0101.3	0101.6	.3D	33			
	15400	LEAR	8	S	0101.3	0101.5	1.0	110			
	15400	PALE	8	S	0101.3	0101.5	.2D	110			
	2695	LEAR	8	S	0101.3	0101.6	.5	18			
	2695	PALE	8	S	0101.5	0101.6	.1D	20			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

DECEMBER 1980

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	POLARIZATION OR REMARKS
16	9400	TYKW	29	PBI	0103.0		15.0	16	6		
	3750	TYKW	29	PBI	0104.0		10.0	3	1.5		
	1000	TYKW	5	S	0126.6	0126.7	.5	8	2		
	1000	TYKW	45	C	0146.0	0148.8	5.0	150	5		
	9400	TYKW	45	C	0146.0	0147.9	7.0	28	5		
	3750	TYKW	45	C	0147.0	0147.9	5.0	9	2.5		
	2000	TYKW	45	C	0147.0	0148.0	5.0	8	1.5		
	15400	LEAR	8	S	0147.1	0147.1	.2	28			
	8800	LEAR	8	S	0147.1	0147.8	1.2	41			
	4995	LEAR	8	S	0148.0	0148.1	.3	24			
	1000	TYKW	5	S	0209.7	0210.3	2.5	6	1.5		
	3750	TYKW	45	C	0245.0	0401	100.0	7	4		
	2000	TYKW	20	GRF	0300.0	0328	80.0	3	1.5		
	9400	TYKW	20	GRF	0300.0	0310	35.0	4	2		
	9400	TYKW	5	S	0339.3	0339.6	2.0	5	1.5		
	9400	TYKW	20	GRF	0345.0	0355	40.0	4	2		
	3750	TYKW	21	GRF	0428.0	0441	65.0	5	2.5		
	9400	TYKW	5	S	0428.0	0438	25.0	4	2		
	2000	TYKW	21	GRF	0438.0	0441	60.0	3	1		
	1000	TYKW	8	S	0435.3	0435.4	.2	18	5		
	1000	TYKW	45	C	0439.6	0441.3	2.0	14	1.5		
	3750	TYKW	5	S	0501.0	0503.3	15.0	4	1.5		
	9400	TYKW	5	S	0501.0	0505	20.0	3	1.5		
	1000	TYKW	5	S	0501.5	0502.3	1.5	2.5	1		
	2000	TYKW	45	C	0502.0	0503.3	2.5	4	1		
	3750	TYKW	5	S	0521.5	0522.6	5.0	8	3		
	9400	TYKW	21	GRF	0540.0	0556	40.0	5	2.5		
	3750	TYKW	20	GRF	0540.0	0555	40.0	5	2.5		
	9400	TYKW	8	S	0547.7	0547.8	.3	6	3		
	2950	GORK	21	GRF	0639.0	0921.0	300.0E	20			
	15000	KISV	4	C	0642.0	0647.5	10.0	25			
	5730	IRKU	2	S	0645.5	0647.7	6.0	35			R
	9400	TYKW	5	S	0646.0	0647.8	5.0	16	7		
	3750	TYKW	45	C	0646.0	0647.9	5.0	12	6		
	9100	GORK	23	GRF	0646.2		284.0E				
	8800	LEAR	4	S/F	0646.8	0647.6	7.3	31			
	4995	LEAR	4	S/F	0647.1	0647.6	3.0	28			
	15400	LEAR	8	S	0647.3	0647.3	1.2	27			
	2695	LEAR	8	S	0647.6	0648.3	.2	15			
	15000	KISV	29	PBI	0648.0E	0648		13			
	9400	TYKW	29	PBI	0651.0		2.0D	7	6 D		
	3750	TYKW	29	PBI	0651.0		2.0D	5	4 D		
	113	POTS	46	C	0759.9	0808.0	15.0	11000			III
	127	TORN	49	GB	0802.5	0807.8	12.0	6300			
	950	GORK	46	C	0803.6	0806.4	11.2	80			
	950	GORK			0803.6	0807.6		80 D			
	3200	BERN	4	S/F	0804.0	0807.5	18.0	.0			ONLY PAPER REC
	5200	BERN	4	S/F	0804.0	0807.6	7.0	79.0			
	15000	KISV	45	C	0804.0	0807.6	16.0	30			
	8800	ATHN	4	S/F	0804.1	0807.6	19.5	96			
	3100	CRIM	29	PBI	0804.8	0810.0	5.0	7	3		
	204	IIMI	41	F	0805.0	0810.5	10.5	750			
	930	BORD	42	SER	0805.0	0807.8	10.0	1682	10		
	810	KRAK	47	GB	0805.3	0807.5	9.5	900 D	70		
	430	KRAK	46	C	0805.3	0810.0	9.5	230	19		
	2695	ATHN	4	S/F	0805.3	0807.8	3.5D	21			
	33	UPIC	46	C	0805.4	0807.4	3.7				
	29	UPIC	46	C	0805.5	0807.8	3.0				
	2950	GORK			0805.7	0807.6		20			
	2950	GORK			0805.7	0810.4		6			
	2950	GORK	45	C	0805.7	0806.3	5.0	7			
	3100	CRIM	45	C	0805.8	0806.3	4.0	14	13		
	3100	CRIM			0805.8	0807.7		38			
	8400	BERN	4	S/F	0806.5	0807.6	5.0	131.0			
	11800	BERN	4	S/F	0806.5	0807.6	5.0	88.0			
	1470	POTS	3	S	0807.0	0807.8	1.5	48			
	3000	POTS	3	S	0807.0	0807.6	1.4	32			
	9100	GORK	4	S/F	0807.1	0807.7	1.5	84			
	1415	ATHN	4	S/F	0807.1	0807.8	2.2D	40			
	9500	POTS	3	S	0807.2	0807.5	1.3	49			
	234	POTS	42	SER	0807.2	0810.6	3.4	675	10		III
	3200	BERN	20	GRF	0838.0	0838.3	23.0	.0			ONLY PAPER REC
	15000	KISV	3	S	0830.0	0834.5	10.0	8			
	8400	BERN	3	S	0831.0	0907.7	60.0	162.0			
	11800	BERN	3	S	0831.0	0907.6	60.0	142.0			
	3100	CRIM	20	GRF	0832.0	0835.0	14.0	9	3		
	52 & 2	ERN	20	GRF	0832.7	0838.4	20.0	13.0			
	5200	BERN	3	S	0852.5	0907.6	40.0	75.0			
	9500	POTS	21	GRF	0900.0	1029.0	290.0	57			
	2695	LEAR	4	S/F	0900.1	0900.8	3.7	19			
	3000	POTS	21	GRF	0905.0	1100.0	260.0	50			
	3000	POTS	3	S	0905.5	0909.2	8.0	28			
	8800	ATHN	4	S/F	0905.6	0907.8	21.0	150			
	19600	BERN	3	S	0906.0	0907.7	7.0	75.0			
	3200	BERN	3	S	0906.0	0908.0	30.0	.0			ONLY PAPER REC

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

DECEMBER 1980

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
					UT	UT	MINUTES	PEAK	MEAN		
16	9500	POTS	3	S	0906.0	0908.0	7.0	87			
	10715	DWIN	3	S	0906.0	0908	9.0	110	50		
	15000	KISV	4	S/F	0906.0	0907.6	14.0	80			
	9100	GORK	3	S	0906.1	0907.9	6.3	106			
	2950	GORK	1	S	0907.1	0909.0	4.2	8	4		
	15000	KISV	29	PBI	0920.0	0920	28.0	5			
	2695	LEAR	8	S	0928.1	0928.3	.5	24			
	5200	BERN	45	C	0936.0	1011.1	107.0	152.0			
	11800	BERN	45	C	0936.0	1011.1	90.0	103.0			
	8400	BERN	45	C	0937.0	1011.1	90.0	137.0			
	3100	CRIM	29	PBI	0937.0	1016.0		47			
	3100	CRIM			0937.0	1011.0		137			
	3100	CRIM			0937.0	0952.3		77			
	3100	CRIM	47	GB	0937.0	0950.5	38.0	66	46		
	3100	CRIM			0937.0	0958.0		128			
	3200	BERN	45	C	0938.0	1011.1	107.0	.0			ONLY PAPER REC
	9500	POTS	42	SER	0939.8	0943.0	3.7	36			
	10715	DWIN	21	GRF	0940.0	1010	110.0	120	60		
	1470	POTS	21	GRF	0942.0	1057.5	213.0	20			
	4995	LEAR	47	GB	0942.1	1011.1	47.5	220			
	2695	LEAR	47	GB	0942.8	1011.1	46.8	160			
	2950	GORK	46	C	0945.0	0950.5	22.7	40	D		
	950	GORK	21	GRF	0945.0	1020.5	105.0E	21			
	2950	GORK			0945.0	1011.0		60			
	2950	GORK			0945.0	1013.0		50			
	15000	KISV	4	S/F	0948.0	1011	72.0	60			
	8800	LEAR	47	GB	0948.8	1011.1	34.7	160			
	3000	POTS	4	S/F	0949.5	0952.4	5.0	100			
	2650	DWIN	45	C	0950.0	1011	26.0	90	40		
	9500	POTS	3	S	0951.5	0952.5	2.5	54			
	1470	POTS	3	S	0955.0	0958.0	4.2	42			
	950	GORK	1	S	0955.6	0958.2	51.0	7			
	3000	POTS	4	S/F	0956.0	0958.0	4.0	135			
	9500	POTS			0956.0	0958.2		76			
	9500	POTS	4	S/F	0956.0	0957.5	4.0	76			
	15400	LEAR	47	GB	0956.6	0957.8	2.0	57			
	245	LEAR	47	GB	1008.1	1008.8	5.9	36			
	8800	ATHN	4	S/F	1008.8	1011.5	15.7	77			
	9500	POTS	3	S	1009.0	1011.0	5.5	107			
	3000	POTS	4	S/F	1009.0	1011.0	6.5	158			
	950	GORK			1009.0	1011.3		20			
	950	GORK	46	C	1009.0	1010.6	5.6	14			
	930	BORD	40	F	1009.0	1011.3	12.0	26	6		
	810	KRAK	27	RF	1009.0	1010.5	7.5	14	5		
	9100	GORK	4	S/F	1009.1	1011.0	5.0	50			
	2695	ATHN	4	S/F	1009.5	1011.6	12.0D	62			
	1415	ATHN	4	S/F	1009.6	1011.8	6.5	44			
	1470	POTS	4	S/F	1010.5	1011.4	4.9	56			
	536	ONDR	42	SER	1011.0	1036.0	25.0	41			
	536	ONDR	42	SER	1011.0	1036	25.0	41			
	606	LEAR	47	GB	1012.5	1012.6	.1	11			
	1470	POTS	40	F	1015.4	1017.7	8.6	36			
	1470	POTS	40	F	1026.7	1035.4	13.0	32			
	810	KRAK	1	S	1029.7	1030.0	.5	14	7		
	3100	CRIM	1	S	1031.0	1032.0	2.0	9	3		
	3100	CRIM	1	S	1035.5	1036.5	2.0	7	2		
	8400	BERN	46	C	1136.0	1148.0	63.0	70.0			
	5200	BERN	46	C	1136.3	1148.0	69.0	63.0			
	35000	BERN	46	C	1139.5	1157.0	30.0	116.0			
	113	POTS	42	SER	1139.9	1141.0	12.0	4200	40		III
	9400	HUAN		S	1140.7	1155.5	53.1	35.2	10.3		R
	3200	BERN	46	C	1142.5	1150.6	60.0	.0			ONLY PAPER REC
	11800	BERN	46	C	1143.0	1157.9	51.0	48.0			
	10715	DWIN	1	S	1144.0	1144.5	1.0	30	15		
	15000	KISV	4	S/F	1144.0	1158.3		30			
	9400	HUAN		S	1144.1	1144.8	11.5	27.2	12.5		R
	19600	BERN	46	C	1144.3	1157.0	51.0	79.0			
	8800	ATHN	4	S/F	1144.3	1148.0	25.8	79			
	9500	POTS	3	S	1144.5	1144.8	1.0	38			
	430	KRAK	27	RF	1146.5	1236.0	96.5	70	23		
	2650	DWIN	45	C	1147.0	1150	15.0	50	30		
	2695	ATHN	4	S/F	1147.0	1151.0	19.0D	44			
	9400	HUAN		S	1147.4	1148.1	1.7	40.0	19.8		R
	9500	POTS	3	S	1147.5	1148.0	1.2	54			
	3000	POTS	4	S/F	1147.5	1150.9	5.5	90			
	10715	DWIN	1	S	1148.0	1148.5	1.0	40	20		
	430	KRAK	4	S/F	1148.5	1149.5	1.2	90	11		
	930	BORD	46	C	1149.0	1150	4.0	67	4		
	1470	POTS	4	S/F	1149.0	1150.0	3.5	26			
	808	ONDR	2	S/F	1149.5	1150.2	6.5	25	3.5		
	808	ONDR	2	S/F	1149.5	1150.2	6.5	25	3.5		
	204	IZMI	5	S	1149.5	1149.8	1.2	1940	1400		
	234	POTS	4	S/F	1149.6	1150.0	.8	950	100		III/V
	1415	ATHN	4	S/F	1149.6	1150.1	3.0	24			
	260	ONDR	8	S	1150.0	1150	1.0	202			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

DECEMBER 1980

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
					UT	UT	MINUTES	PEAK	MEAN		
16	260	ONDR	8	S	1150.0	1150.0	1.0	202			
	810	KRAK	4	S/F	1150.0	1150.7	3.5	37	6		
	9400	HUAN		S	1157.0	1158.0	2.0	11.2	5.2		R
	3000	POTS	3	S	1157.0	1158.0	4.0	79			
	9500	POTS	3	S	1157.5	1157.9	1.5	48			
	1470	POTS	3	S	1158.0	1158.5	2.0	10			
	234	POTS	42	SER	1226.4	1240.2	19.0	360	1		III
	430	KRAK	8	S	1231.0	1231.2	.5	160			
	3100	CRIM	45	C	1249.5	1250.0	3.0	36	13		
	3100	CRIM			1249.5	1250.9		41			
	3100	CRIM	3	S	1257.0	1258.0	4.0	34	11		
	930	BORD	8	S	1344.4	1344.4	.2	14	1		
	930	BORD	41	F	1412.2	1412.3	.4	28	3		
	930	BORD	8	S	1414.7	1414.8	.2	37	2		
	2800	OTTA	23	GRF	1427.0	1456	40.0	15.2	7.0		
	11800	BERN	4	S/F	1433.5	1436.6	22.0D	134.0			
	8400	BERN	4	S/F	1433.7	1436.6	22.0D	97.0			
	5200	BERN	4	S/F	1434.6	1436.3	3.0	39.0			
	3200	BERN	4	S/F	1435.6	1436.3	2.5	.0			ONLY PAPER REC
	19600	BERN	4	S/F	1435.7	1436.6	22.0D	130.0			
	9400	HUAN		S	1435.8	1436.7	3.7	97.6	47.2		R
	930	BORD	42	SER	1436.0	1454	24.0	232	7		
	2800	OTTA	3	S	1436.0	1436.5	1.8	10.8	5.4		
	2800	OTTA	46F	C	1451.9	1453.4	1.5	28.0	13.0		
	9400	HUAN		S	1452.0	1453.3	2.3	64.0	24.0		R
	9400	HUAN		PBI	1454.3	1454.3	13.2	14.4	7.0		R
	2800	OTTA	22	GRF	1525.0	1610	80.0	5.4	2.7		
	2800	OTTA	260	FAL	1722.0	1812	50.0	-9.2	-4.6		
	606	SGMR	47	GB	1836.0	1843.1	8.5	400			
	410	SGMR	47	GB	1838.8	1843.1	6.3D	660			
	245	SGMR	4	S/F	1838.8	1843.1	6.3D	1000			
	410	PALE	47	GB	1842.3	1843.3	1.0	740			
	606	PALE	8	S	1842.3	1843.3	1.0	490			
	2800	OTTA	21	GRF	1850.0	1920	40.0	5.4	4.3		
	2800	OTTA	8	S	1922.0	1922	0.3	15.2			
	2800	OTTA	240	R	1934.0	1937	3.0	4.2	2.1		
	245	PALE	8	S	2011.1	2011.1	.2	39			
	245	SGMR	4	S/F	2025.1	2031.1	7.0D	230			
	606	SGMR	4	S/F	2025.1	2026.8	6.0	220			
	410	SGMR	4	S/F	2025.1	2026.1	7.0D	290			
	606	PALE	8	S	2025.3	2026.8	2.0	360			
	410	PALE	8	S	2030.6	2030.6	.4	220			
	245	PALE	8	S	2030.6	2030.6	.2	430			
	606	PALE	8	S	2030.6	2030.6	.2	170			
	1000	TYKW	45	C	2222.0	2222.8	2.0	55	6		
	245	LEAR	8	S	2222.1	2222.8	1.0	150			
	606	LEAR	8	S	2222.3	2223.0	1.3	25			
	3750	TYKW	20	GRF	2314.0	2329.5	30.0	9	3		
	9400	TYKW	45	C	2322.0	2324.7	20.0	7	2		
	1000	TYKW	45	C	2334.0	2334.7	2.0	32	5		
	245	PALE	8	S	2358.0	2358.1	.1	190			
17	200	GORK	44	NS	0629.0E		307.0D		10		
	100	GORK	44	NS	0630.0E		306.0D		10		
	234	POTS	44	NS	0700.0E	1230.0	420.0D	50			
	113	POTS	44	NS	0700.0E	1358.0	420.0D	200			
	245	LEAR	43	NS	0700.0	0907.8	226.0D	110			
	204	IZMI	44	NS	0700.0E		300.0D	52			
	127	TORN	44	NS	0720.0E	1157.4	430.0D	10000	92		V1
	260	ONDR	44	NS	0837.0E		326.0D	88	12		
	260	ONDR	44	NS	0837.0E		326.0D	88	12		
	245	SGMR	43	NS	1213.0	1347.0	533.0D	180			
	100	HIRA	44	NS	2143.0E	2312	580.0D	1800	130		
	200	HIRA	44	NS	2143.0E	2325	580.0D	80	30		SL
	245	LEAR	43	NS	2320.0	0312.1	687.0D	350			
	2000	TYKW	21	GRF	0010.0	0105	135.0	4	2		
	3750	TYKW	21	GRF	0010.0	0102	135.0	10	5		
	9400	TYKW	5	S	0018.0	0019.1	3.0	5	2		
	9400	TYKW	5	S	0027.5	0028.2	3.0	3	1		
	3750	TYKW	5	S	0036.5	0037.4	1.5	9	3.5		
	3750	TYKW	29	PBI	0038.0		7.0	3	1.5		
	1000	TYKW	45	C	0102.0	0103.5	5.0	7	1		
	3750	TYKW	45	C	0127.0	0128.0	3.0	3	1		
	2000	TYKW	45	C	0127.5	0129.1	2.5	2	.5		
	1000	TYKW	45	C	0127.8	0128.0	3.0	3	1		
	9400	TYKW	45	C	0127.8	0128.0	2.0	22	6		
	606	PALE	8	S	0129.3	0129.8	1.0	40			
	3750	TYKW	20	GRF	0143.0	0213	40.0	4	2		
	606	PALE	4	S/F	0158.6	0200.1	2.7	260			
	606	LEAR	4	S/F	0158.6	0200.5	2.2	270			
	606	LEAR	8	S	0211.3	0212.6	1.5	30			
	410	LEAR	8	S	0212.6	0212.6	.2	84			
	1000	TYKW	8	S	0212.6	0212.8	.4	158	U 30	U	
	245	PALE	8	S	0215.0	0215.1	.1	55			
	606	PALE	8	S	0215.0	0215.1	.1	160			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

DECEMBER 1980

DAY OF MONTH	FREQUENCY	STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
				UT	UT	MINUTES	PEAK	MEAN		
17	9400	TYKW	21 GRF	0233.0	0242	230.0	14	3		
	2000	TYKW	21 GRF	0233.0	0404	230.0	7	3.5		
	3750	TYKW	21 GRF	0233.0	0246	230.0	15	8		
	1000	TYKW	45 C	0238.5	0238.7	.5	81	20		
	4995	LEAR	4 S/F	0239.6	0242.1	12.5	25			
	8800	LEAR	4 S/F	0240.5	0241.6	11.6	13			
	3750	TYKW	5 S	0304.0	0306.6	8.0	8	3		
	9400	TYKW	5 S	0307.0E	0307 U	5.0D	5 D	2 D		
	3750	TYKW	28 PRE	0315.0	0323	8.0	2	1.5		
	9400	TYKW	20 GRF	0320.0	0327	60.0	6	3		
	3750	TYKW	5 S	0323.0	0326.7	7.0	21	12		
	2000	TYKW	5 S	0324.0	0326.7	10.0	7	2		
	2695	LEAR	4 S/F	0325.1	0326.1	2.4	20			
	4995	LEAR	4 S/F	0325.1	0326.6	3.0	22			
	3750	TYKW	30 PBI	0330.0		50.0	8	4.5		
	1000	TYKW	45 C	0337.6	0337.8	.7	19	5		
	606	LEAR	8 S	0337.6	0337.8	.5	180			
	1000	TYKW	45 C	0345.5	0345.6	.8	10	2		
	3750	TYKW	5 S	0346.0	0347.2	3.0	11	3		
	3750	TYKW	5 S	0352.0	0356	18.0	5	2		
	1000	TYKW	45 C	0403.5	0403.8	1.5	3.5	1		
	1000	TYKW	45 C	0406.0	0406.4	.6	4.5	1.5		
	3750	TYKW	45 C	0410.0	0411.5	7.0	2	1		
	1000	TYKW	45 C	0415.0	0415.7	1.5	38	6		
	200	HIRA	46 C	0420.6	0422.9	2.6	440	160		MR
	1000	TYKW	47 GB	0421.5	0423.4	8.5	940	20 U		
	100	HIRA	42 SER	0421.6	0423.3	14.0	17000			WL
	606	LEAR	47 GB	0422.0E	0424.8	5.3D	11000			
	245	LEAR	4 S/F	0422.0E	0424.0	6.5D	430			
	410	LEAR	4 S/F	0422.0E	0427.0	5.3D	110			
	2000	TYKW	45 C	0422.0	0423.7	7.0	17	3.5		
	9400	TYKW	45 C	0422.5	0423.6	7.0	27	3		
	3750	TYKW	45 C	0422.5	0423.7	7.0	14	4		
	500	HIRA	48 C	0422.5	0423.0	4.5	8000	2500		SL
	1000	TYKW	45 C	0430.0	0431.2	1.5	42	4		
	2000	TYKW	45 C	0432.0	0432.6	3.0	4.5	.5		
	1000	TYKW	45 C	0432.5	0434.2	2.5	175	20		
	1000	TYKW	45 C	0436.0	0437.6	4.5	130	20		
	606	LEAR	8 S	0437.1	0437.1	.5	74			
	1000	TYKW	45 C	0540.0	0540.4	2.0	30	3		
	1000	TYKW	45 C	0547.5	0548.7	1.0	105	5 U		
	1000	TYKW	8 S	0552.5	0552.6	.3	15	4		
	1000	TYKW	8 S	0608.1	0608.2	.3	18	6		
	606	LEAR	8 S	0620.3	0620.5	.3	130			
	1000	TYKW	8 S	0620.4	0620.6	.3	55	15		
	245	LEAR	8 S	0624.1	0624.1	.2	110			
	606	LEAR	47 GB	0637.1	0637.3	.7	550			
	100	HIRA	8 S	0637.2	0637.5U	.5	100000 D			
	1000	TYKW	8 S	0637.2	0637.3	.4	117	25		
	2950	GORK	21 GRF	0654.0	0800.0	270.0E	17			
	950	GORK	2 S/F	0718.0	0720.7	5.8	15			
	9100	GORK	23 GRF	0724.7	0817.8	94.0	14			
	950	GORK	21 GRF	0739.0	0755.0	108.0	8			
	650	GORK	4 S/F	0749.7	0750.6	2.9	30	7		
	650	GORK	21 GRF	0749.7		37.3	5			
	950	GORK	4 S/F	0749.7	0752.2	4.4	23			
	606	LEAR	8 S	0750.0	0750.8	1.6	42			
	650	GORK		0801.4	0807.1		20			
	650	GORK	46 C	0801.4	0805.4	5.8	30			
	650	GORK		0801.4	0806.2		57			
	606	LEAR	4 S/F	0802.3	0806.1	6.3	90			
	5200	BERN	3 S	0803.0	0805.1	22.0	18.0			
	3200	BERN	22 GRF	0803.0	0805.1	22.0	.0			ONLY PAPER REC
	3100	CRIM	1 S	0803.4	0805.0	6.0	12	4		
	430	KRAK	42 SER	0803.5	0805.8	24.5	70			
	430	KRAK		0803.5	0816.5		50			
	8400	BERN	3 S	0803.8	0805.6	17.0	15.0			
	2950	GORK	1 S	0803.8	0805.0	3.0	12	6		
	950	GORK	4 S/F	0804.4	0806.3	2.3	75			
	810	KRAK		0804.5	0824.0		120			
	810	KRAK		0804.5	0816.8		350			
	810	KRAK	42 SER	0804.5	0806.0	19.5	230			
	100	GORK	41 F	0804.9	0805.0	1.6	1440			
	100	GORK		0804.9	0805.3		1440 D			
	245	LEAR	47 GB	0806.6	0816.8	15.2	770			
	15000	KISV	4 S/F	0815.0	0816.6	5.0	8			
	2950	GORK	1 S	0815.3	0816.8	2.0	7	3		
	950	GORK	4 S/F	0815.6	0816.7	3.7	138			
	650	GORK	46 C	0815.6	0819.6	5.0	1370			
	650	GORK		0815.6	0819.9		970			
	606	LEAR	47 GB	0815.6	0819.5	6.2	2300			
	410	LEAR	8 S	0815.6	0806.8	1.5	40			
	9100	GORK	1 S	0816.2	0816.9	1.2	8	4		
	234	POTS	4 S/F	0816.7	0816.8	.3	175	20		III
	650	GORK	20 GRF	0839.0		18.0	3			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

DECEMBER 1980

DAY OF MONTH	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	POLARIZATION OR REMARKS
17	15000	KISV	32 ABS	0839.0	0842	6.0	5			
	19600	BERN	4 S/F	0844.5	0845.7	6.0	698.0			
	35000	BERN	4 S/F	0844.5	0845.8	3.0U	298.0			
	5200	BERN	4 S/F	0844.7	0845.7	11.0	181.0			
	200	GORK	41 F	0844.7	0845.8	70.0	460			
	200	GORK		0844.7	0847.9		570			
	430	KRAK	4 S/F	0844.7	0845.7	4.3	230	34		
	2695	ATHN	8 S	0844.8	0845.8	1.5D	230			
	8400	BERN	4 S/F	0844.8	0845.7	11.0	408.0			
	11800	BERN	4 S/F	0844.8	0845.7	9.0	521.0			
	3200	BERN	4 S/F	0845.0	0845.5	11.0	.0			ONLY PAPER REC
	950	GORK	46 C	0845.0	0846.1	3.0	1840			
	10715	DWIN	3 S	0845.0	0846	2.0	530	200		
	536	ONDR	45 C	0845.0	0846.8	4.0	325	119		
	3000	POTS	4 S/F	0845.0	0845.8	4.0	176			
	650	GORK	46 C	0845.0	0846 U	3.4	2200 D			
	650	GORK		0845.0	0847 U		2200 D			
	234	POTS	4 S/F	0845.0	0845.9	1.4	16000	50		III
	2650	DWIN	3 S	0845.0	0846	2.0	215	100		
	950	GORK		0845.0	0846.8		4300			
	536	ONDR	45 C	0845.0	0846.8	4.0	325	119		
	260	ONDR	45 C	0845.0	0848.7	5.0	165	18		
	260	ONDR	45 C	0845.0	0848.7	5.0	165	18		
	1470	POTS	4 S/F	0845.0	0846.1	4.0	210			
	9500	POTS	3 S	0845.0	0845.5	4.0	340			
	3100	CRIM	3 S	0845.0	0845.5	5.0	220	70		
	33	UPIC	45 C	0845.1	0845.2	2.7U				
	113	POTS	4 S/F	0845.2	0846.1	1.5	14000	250		III
	9100	GORK	3 S	0845.2	0845.8	4.5	400			
	2950	GORK	3 S	0845.2	0845.6	2.8	70 D			
	245	LEAR	47 GB	0845.3	0845.8	3.0	1600			
	204	IZMI	46 C	0845.3	0845.8	4.0	700	250		
	100	GORK	8 S	0845.4	0845.6U	.6	19000 D			
	29	UPIC	45 C	0845.4	0845.6	1.1				
	8800	ATHN	47 GB	0845.5	0845.8	.5	620			
	4995	LEAR	8 S	0845.5	0845.8	.6	190			
	606	LEAR	47 GB	0845.5	0846.8	2.8	22000			
	410	LEAR	8 S	0845.5	0845.6	1.5	240			
	2695	LEAR	8 S	0845.5	0845.8	.8	210			
	1415	ATHN	4 S/F	0845.5	0846.0	3.8D	490			
	15400	LEAR	47 GB	0845.5	0845.6	.8	560			
	8800	LEAR	8 S	0845.5	0845.6	.6	460			
	810	KRAK	47 GB	0845.5	0846 U	4.5	900 D	500		
	606	MANI	47 GB	0846.0	0847.8	5.0D	1300			
	808	ONDR	45 C	0846.5		3.5	656 D	188		
	808	ONDR	45 C	0846.5		3.5	656 D	188		
	15000	KISV	8 S	0847.0		1.0	50			
	4995	MANI	8 S	0847.1	0847.5	1.4D	200			
	2695	MANI	4 S/F	0847.1	0847.8	3.4D	200			
	1415	MANI	4 S/F	0847.1	0847.8	3.4D	42			
	8800	MANI	8 S	0847.1	0847.5	1.4	480			
	3200	BERN	20 GRF	0920.0	0944.5	80.0	.0			ONLY PAPER REC
	5200	BERN	20 GRF	0920.7	0944.5	80.0	13.0			
	810	KRAK	1 S	0929.3	0929.3	.3	10	1		
	930	BORD	8 S	0929.6	0929.6	.3	73	2		
	810	KRAK		1118.5	1134.5		52			
	810	KRAK	42 SER	1118.5	1131.7	16.5	110			
	430	KRAK	42 SER	1119.0	1132.5	20.0	210			
	3000	POTS	1 S	1119.0	1119.4	1.0	5.0			
	1470	POTS	8 S	1119.5	1119.7	.5	4.7			
	930	BORD	8 S	1119.6	1119.8	.2	41	2		
	808	ONDR	45 C	1132.0	1132.7	5.0	72	3		
	808	ONDR	45 C	1132.0	1132.7	5.0	72	3		
	33	UPIC	42 SER	1132.1	1132.7	14.1				
	5200	BERN	3 S	1132.1	1132.8	1.5	15.0			
	950	GORK	41 F	1132.2	1133.1	4.4	35			
	950	GORK		1132.2	1136.4		35			
	3200	BERN	3 S	1132.3	1132.8	.7	.0			ONLY PAPER REC
	8400	BERN	3 S	1132.4	1132.9	1.5	15.0			
	9500	POTS	8 S	1132.5	1133.0	.8	5			
	3000	POTS	1 S	1132.5	1133.0	1.0	6			
	930	BORD	42 SER	1132.5	1138.2	4.5	191	4		
	204	IZMI	7 C	1132.5	1133.0	1.2	2800	1250		
	29	UPIC	42 SER	1132.6	1132.9	13.9				
	536	ONDR	8 S	1132.7	1132.7	.4	84			
	234	POTS	4 S/F	1132.7	1132.9	.7	38000	900		III
	234	POTS	4 S/F	1132.7	1132.9	.7	38000	900		III
	536	ONDR	8 S	1132.7	1132.7	.4	84			
	100	GORK	8 S	1132.8	1132.9	.5	1800 D			
	113	POTS	4 S/F	1132.8	1132.9	.9	46000	350		III
	1470	POTS	8 S	1132.9	1133.2	.9	7.5			
	260	ONDR	8 S	1133.2	1133.7	.5	199			
	260	ONDR	8 S	1133.2	1133.7	.5	199			
	234	POTS	4 S/F	1139.2	1139.6	1.0	250	10		
	5200	BERN	45 C	1157.5	1209.0	95.0	276.0			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

DECEMBER 1980

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
					UT	UT	MINUTES	PEAK	MEAN		
17	8400	BERN	45	C	1157.5	1209.0	95.0	245.0			
	9400	HUAN	28	PRE	1200.0	1206.6	6.6	13.2	7.6		R
	3200	BERN	45	C	1202.0	1209.1	110.0	.0			ONLY PAPER REC
	11800	BERN	45	C	1205.0	1209.0	95.0	165.0			
	808	ONDR	41	F	1205.5	1207	12.5	30	13		
	808	ONDR	41	F	1205.5	1207.0	12.5	30	13		
	3000	POTS	29	PBI	1206.0	1209.2	34.0	200			
	9500	POTS	29	PBI	1206.0	1209.0	36.0	176			
	9400	HUAN		S	1206.6	1208.7	4.4	163.9	87.8		R
	810	KRAK	4	S/F	1207.0	1207.8	6.5	47	12		
	2650	DWIN	4	S/F	1207.0	1209	8.0	160	800		
	10715	DWIN	4	S/F	1207.0	1209	8.0	230	100		
	1470	POTS	3	S	1207.0	1209.0	9.0	60			
	19600	BERN	45	C	1207.0	1209.0	30.0U	97.0			
	8800	ATHN	4	S/F	1207.8	1210.3	24.7	230			
	536	ONDR	8	S	1208.0	1208	.3	72			
	536	ONDR	8	S	1208.0	1208.0	.3	72			
	430	KRAK			1208.0	1212.0		60			
	930	BORD	3	S	1208.0	1209.4	6.0	32	10		
	430	KRAK	42	SER	1208.0	1208.5	4.5	170			
	2695	ATHN	4	S/F	1208.3	1210.3	24.2D	160			
	1415	ATHN	4	S/F	1209.1	1210.5	17.0D	63			
	9400	HUAN		PBI	1211.0	1211.0	81.6	34.8	6.7		R
	4995	SGMR	4	S/F	1253.6	1256.1	8.2D	80			
	2695	ATHN	4	S/F	1254.0	1259.5	11.5D	13			
	8800	ATHN	4	S/F	1254.0	1256.3	9.3	56			
	3000	POTS	3	S	1254.5	1256.5	8.0	16			
	9400	HUAN		S	1254.7	1256.5	3.1	48.0	27.2		R
	8800	SGMR	4	S/F	1254.8	1256.1	6.0	86			
	9500	POTS	29	PBI	1255.0	1256.5	8.0	40			
	33	UPIC	45	C	1258.0	1258.3	1.2U		.		
	29	UPIC	45	C	1258.0	1258.4	.5				
	810	KRAK	8	S	1348.0	1348.1	.2	29			
	2800	OTTA	260	FAL	1440.0	1500	20.0	-5.2	-2.6		
	2800	OTTA	20	GRF	1510.0	1517	47.0	8.0	5.0		
	2800	OTTA	21	GRF	1725.0	1800	105.0	5.2			
	245	PALE	8	S	1747.1	1747.8	1.5	72			
	9400	HUAN		S	1812.7	1826.6	46.8	26.5	10.6		L
	15400	SGMR	4	S/F	1817.1	1822.1	12.2	23			
	2695	SGMR	4	S/F	1817.3	1822.1	12.0D	22			
	8800	SGMR	4	S/F	1817.8	1822.1	11.2D	38			
	4995	SGMR	4	S/F	1817.8	1822.1	11.3D	29			
	2800	OTTA	4	S/F	1818.0	1822	12.0	17.8	8.0		
	9400	HUAN		S	1821.8	1822.5	1.2	16.6	6.8		0
	245	PALE	4	S/F	1830.3	1842.3	17.8	28			
	606	PALE	4	S/F	1830.5	1839.1	16.1	34			
	606	SGMR	4	S/F	1830.8	1839.1	16.0	38			
	410	SGMR	4	S/F	1831.1	1837.1	15.0D	17			
	410	PALE	4	S/F	1832.3	1837.1	14.0	22			
	606	PALE	8	S	2022.5	2022.8	.5	45			
	245	PALE	8	S	2022.5	2022.8	.5	11			
	2695	PENT	20	GRF	2101.0	2108	20.0	15.8	7.0		
	4995	PALE	4	S/F	2103.3	2108.5	13.7	15			
	2695	PALE	4	S/F	2103.3	2108.5	13.2	19			
	2000	TYKW	45	C	2255.0	2258.0	5.0	70	20		
	9400	TYKW	5	S	2255.0	2257.5	5.0	30	12		
	3750	TYKW	5	S	2255.0	2257.5	5.0	42	17		
	2695	LEAR	4	S/F	2255.6	2258.0	4.2	73			
	4995	LEAR	4	S/F	2255.8	2257.3	2.8	42			
	8800	LEAR	4	S/F	2256.0	2257.3	3.0	44			
	1415	PALE	4	S/F	2256.3	2258.1	2.8	210			
	4995	PALE	8	S	2256.3	2257.3	1.8	44			
	500	HIRA	46	C	2256.5	2257.0	1.0	70	30		0
	606	PALE	8	S	2256.6	2256.6	.7	81			
	8800	PALE	8	S	2256.6	2257.6	1.5	35			
	2695	PALE	8	S	2256.6	2258.0	2.0	72			
	606	LEAR	4	S/F	2256.6	2256.8	2.4	67			
	1000	TYKW	45	C	2256.7	2257.5	2.4	87	25		
	9400	TYKW	29	PBI	2300.0		60.0	7	3		
	3750	TYKW	29	PBI	2300.0		40.0	6	3		
	2000	TYKW	29	PBI	2300.0		40.0	5	2		
	1000	TYKW	5	S	2355.4	2355.6	.6	7	1.5		
18	100	GORK	44	NS	0628.0E		314.0D		10		
	200	GORK	44	NS	0629.0E		313.0D		5		
	127	TORN	44	NS	0830.0E	1306.7	360.0D	360	28		V1
	260	ONDR	44	NS	0846.0E		327.0D	27	4		
	260	ONDR	44	NS	0846.0E		327.0D	27	4		
	245	SGMR	43	NS	1214.0	1425.1	532.0D	54			
	410	SGMR	43	NS	1443.8	1934.1	382.2D	13			
	606	SGMR	43	NS	1506.1	1515.1	1.0	52			
	606	SGMR	43	NS	1506.1	1515.1	359.9D	52			
	245	LEAR	43	NS	2154.0	0954.8	763.0D	380			
	3750	TYKW	20	GRF	0020.0	0030	40.0	3	1.5		
	1000	TYKW	5	S	0049.5	0049.6	.5	8	1.5		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

DECEMBER 1980

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	POLARIZATION OR REMARKS
18	3750	TYKW	28	PRE	0120.0	0125.7	20.0	14	7		
	9400	TYKW	28	PRE	0120.0	0140	20.0	7	3		
	4995	LEAR	8	S	0124.6	0125.3	1.0	17			
	4995	LEAR	4	S/F	0127.6	0128.0	2.5	10			
	8800	LEAR	8	S	0127.6	0128.0	1.5	24			
	15400	LEAR	8	S	0127.8	0128.0	1.3	20			
	606	LEAR	8	S	0129.3	0129.6	1.2	45			
	1000	TYKW	42	SER	0136.3	0140.6	6.0	20	1.5		
	2000	TYKW	8	S	0136.3	0136.4	.4	4	1		
	4995	PALE	47	GB	0137.3	0143.3	18.0	320			
	606	LEAR	8	S	0139.8	0140.1	.P	92			
	245	LEAR	47	GB	0139.8	0142.0	2.3	1300			
	410	LEAR	8	S	0139.8	0140.1	.7	93			
	245	PALE	47	GB	0139.8	0140.6	2.3	950			
	8800	PALE	47	GB	0140.0	0143.1	15.3	520			
	2000	TYKW	45	C	0140.0	0143.3	10.0	26	10		
	3750	TYKW	45	C	0140.0	0143.4	5.0	150	65		
	9400	TYKW	45	C	0140.0	0143.3	5.0	350	120		
	4995	LEAR	47	GB	0140.1	0143.3	17.7	330			
	8800	LEAR	47	GB	0140.1	0143.1	19.7	470			
	2695	PALE	47	GB	0140.8	0141.0	9.3	139			
	15400	PALE	47	GB	0140.8	0143.3	8.8	160			
	15400	LEAR	47	GB	0140.8	0143.1	13.5	139			
	2695	LEAR	47	GB	0140.8	0141.0	6.7	130			
	4995	MANI	47	GB	0144.3	0146.6	4.2D	420			
	2695	MANI	4	S/F	0144.3	0146.6	4.2D	23			
	8800	MANI	47	GB	0144.3	0146.6	4.2	470			
	9400	TYKW	30	PBI	0145.0		65.0	50	12		
	3750	TYKW	30	PBI	0145.0		65.0	48	10		
	2000	TYKW	29	PBI	0150.0		30.0	8	3		
	9400	TYKW	5	S	0228.0	0231	10.0	4	2		
	3750	TYKW	5	S	0228.0	0229.2	10.0	3.5	1		
	2000	TYKW	45	C	0228.5	0229.1	2.5	16	4		
	3750	TYKW	5	S	0417.5	0419.3	2.5	9	4.5		
	3750	TYKW	29	PBI	0420.0		15.0	3	1.5		
	930	BORD	41	F	0901.6	0901.9	.4	18	3		
	2930	VORO	45	C	0935.0	0141	20.0	82			
	8800	SGMR	8	S	1021.0	1021.1	1.6D	460			
	808	ONDR	8	S	1100.8	1100.8	.2	32			
	808	ONDR	8	S	1100.8	1100.8	.2	32			
	536	ONDR	8	S	1100.8	1100.8	.2	14			
	536	ONDR	8	S	1100.8	1100.8	.2	14			
	930	BORD	8	S	1100.8	1100.9	.3	60	2		
	3100	CRIM	20	GRF	1108.5	1114.5	35.0	9	3		
	33	UPIC	46	C	1135.6	1136.5	3.7				
	29	UPIC	46	C	1136.8	1139.4	2.7				
	930	BORD	46	C	1136.9	1137.4	1.0	90	7		
	810	KRAK	2	S/F	1137.0	1137.8	1.0	33	6		
	808	ONDR	2	S/F	1137.0	1137.6	1.5	28	4		
	808	ONDR	2	S/F	1137.0	1137.6	1.5	28	4		
	536	ONDR	42	SER	1137.3	1140	12.0	11			
	536	ONDR	42	SER	1137.3	1140.0	12.0	11			
	930	BORD	42	SER	1229.4	1230.8	3.2	34	2		
	810	KRAK	1	S	1229.5	1230.0	.5	12	5		
	536	ONDR	42	SER	1230.0	1347	95.0	73			
	536	ONDR	42	SER	1230.0	1347.0	95.0	73			
	810	KRAK	41	F	1305.5	1306.5	1.7	31	4		
	930	BORD	41	F	1305.6	1305.8	1.9	76	3		
	430	KRAK	42	SER	1305.8	1307.3	42.5	110			
	430	KRAK			1305.8	1335.8		160			
	430	KRAK			1305.8	1347.5		270			
	606	SGMR	8	S	1305.8	1306.1	1.5	52			
	410	SGMR	4	S/F	1305.8	1308.1	3.3D	15			
	930	BORD	41	F	1326.4	1326.4	1.0	31	2		
	810	KRAK	41	F	1332.5	1333.2	1.0	49			
	930	BORD	41	F	1332.9	1333.3	1.0	36	2		
	930	BORD	41	F	1345.8	1346.4	1.3	43	3		
	810	KRAK	41	F	1346.0	1346.7	1.0	29			
	606	SGMR	8	S	1346.0	1347.0	1.1	350			
	410	SGMR	4	S/F	1346.6	1346.8	2.2D	35			
	810	KRAK	1	S	1355.0	1355.2	.2	6	1		
	606	SGMR	8	S	1403.1	1404.8	2.0	66			
	410	SGMR	8	S	1404.0	1404.6	.8D	62			
	930	BORD	41	F	1404.6	1404.9	.8	62	3		
	2800	OTTA	240	R	1420.0	1423	3.0	5.4	2.7		
	410	SGMR	4	S/F	1440.1	1443.8	7.2D	17			
	606	SGMR	4	S/F	1442.8	1443.8	2.3	300			
	930	BORD	46	C	1442.8	1443.6	1.6	88	5		
	410	SGMR	4	S/F	1450.8	1451.3	4.3	17			
	245	SGMR	47	GB	1450.8	1451.3	6.8D	640			
	606	SGMR	4	S/F	1503.8	1504.6	2.3	250			
	930	BORD	46	C	1504.0	1504.5	1.6	102	3		
	930	BORD	42	SER	1510.0	1513.4	6.0	15	2		
	2800	OTTA	21	GRF	1600.0	1643	75.0	7.6	3.8		
	2800	OTTA	1	S	1648.7	1649	1.3	2.2	1.1		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

DECEMBER 1980

DAY OF MONTH	FREQUENCY	STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
				UT	UT	MINUTES	PEAK	MEAN		
18	2800	OTTA	20 GRF	1730.0	1740	80.0	4.8	2.4		
	2800	OTTA	21 GRF	1910.0	1913	40.0	3.2	1.6		
	2695	SGMR	4 S/F	1921.0	1921.1	7.0D	170			
	1415	SGMR	4 S/F	1921.0	1921.6	9.8D	119			
	4995	SGMR	8 S	1921.0	1921.1	1.6D	280			
	9400	HUAN	S	1921.0	1921.2	1.2	226.5	53.0		R
	8800	PALE	47 GB	1921.1	1921.3	.5	540			
	245	PALE	47 GB	1921.1	1921.3	1.7	15000			
	15400	PALE	47 GB	1921.1	1921.3	.5	720			
	606	PALE	4 S/F	1921.1	1921.5	11.9	160			
	410	SGMR	4 S/F	1921.1	1921.3	7.2D	81			
	1415	PALE	4 S/F	1921.1	1921.6	5.7	119			
	245	SGMR	47 GB	1921.1	1921.3	13.4D	19000			
	606	SGMR	4 S/F	1921.1	1921.3	8.2D	160			
	410	PALE	4 S/F	1921.1	1921.3	7.0	130			
	4995	PALE	8 S	1921.1	1921.3	.5	270			
	15400	SGMR	47 GB	1921.1	1921.5	2.9	630			
	2695	PALE	8 S	1921.1	1921.3	2.0	180			
	2800	OTTA	8 S	1921.2	1921.4	0.8	218.0	109.0		
	2800	OTTA	29 PBI	1922.0	1922	8.0	24.6	8.2		
	245	PALE	47 GB	1934.0	1934.1	.3	1199			
	606	PALE	8 S	1955.8	1956.1	.5	35			
	606	PALE	8 S	1957.5	1958.3	1.3	74			
	410	PALE	8 S	2044.6	2044.8	.5	55			
	245	PALE	47 GB	2044.6	2044.8	.5	610			
	606	PALE	8 S	2044.6	2044.8	.5	45			
	8800	PALE	8 S	2044.6	2044.8	.5	16			
	410	SGMR	8 S	2044.8	2044.8	1.5D	79			
	245	SGMR	47 GB	2044.8	2045.0	3.8D	510			
	606	SGMR	4 S/F	2044.8	2044.8	3.0	48			
	606	PALE	8 S	2047.1	2047.5	.7	30			
	245	PALE	47 GB	2047.3	2047.3	1.8	440			
	410	PALE	8 S	2047.3	2047.5	.3	11			
	606	SGMR	4 S/F	2055.8	2058.0	2.7	64			
	245	PALE	8 S	2102.5	2102.6	.3	65			
	3750	TYKW	5 S	2325.0	2329	10.0	3	1.5		
	3750	TYKW	5 S	2338.0	2344	15.0	6	2.5		
	3750	TYKW	5 S	2356.0	2356.7	10.0	5	1		
19	200	GORK	44 NS	0630.0E		306.0D		5		
	127	TORN	44 NS	0830.0E	0903.5	360.0D	50	1.9		V0
	260	ONDR	44 NS	0835.0E		345.0D	84			
	260	ONDR	44 NS	0835.0E		345.0D	84			
	245	SGMR	43 NS	1214.0	1513.3	533.0D	340			
	245	LEAR	43 NS	2335.0	0825.1	637.0D	360			
	3750	TYKW	45 C	0011.0	0012.8	3.0	8	3		
	3750	TYKW	29 PBI	0014.0		30.0	3	1		
	3750	TYKW	5 S	0048.0	0049.6	4.0	3	1		
	3750	TYKW	5 S	0103.0	0106	25.0	8	3		
	9400	TYKW	5 S	0104.0	0106	25.0	4	2		
	2000	TYKW	20 GRF	0200.0	0210	90.0	4	2		
	3750	TYKW	21 GRF	0200.0	0240	90.0	7	3		
	245	LEAR	4 S/F	0206.3	0208.0	2.7	160			
	245	LEAR	47 GB	0210.1	0211.3	2.0	1500			
	100	HIRA	46 C	0211.3	0211.6	2.4	1200	340		WL
	9400	TYKW	20 GRF	0230.0	0238	40.0	5	2		
	3750	TYKW	5 S	0231.0	0232.5	6.0	6	1.5		
	3750	TYKW	20 GRF	0420.0	0433	90.0	6	2		
	2000	TYKW	20 GRF	0425.0	0433	95.0	4	2		
	9400	TYKW	5 S	0526.5	0526.7	1.0	8	2		
	2950	GORK	1 S	0725.0	0726.7	1.8	4	2		
	100	GORK		0912.7	0913.2		160 D			
	100	GORK	46 C	0912.7	0912.9	1.0	160 D			
	234	POTS	4 S/F	0913.1	0913.3	.6	240	7		III
	100	GORK	41 F	0954.4	0954.5	1.4	170 D			
	100	GORK		0954.4	0955.4		170			
	234	POTS	41 F	0954.8	0954.8	1.4	625	8		III
	650	GORK	22 GRF	1043.2	1057.1	33.8	12			
	950	GORK	20 GRF	1052.7	1057.0	9.8	12.5			
	29	UPIC	42 SER	1237.2	1256.9	20.1				
	33	UPIC	42 SER	1239.7U	1258.3	19.3U				
	2800	OTTA	20 GRF	1415.0	1423	45.0	5.4	3.0		
	930	BORD	8 S	1544.8	1544.9	.4	14	2		
	9400	HUAN	28 PRE	1952.3	2016.3	19.7	2.5	2.1		0
	2800	OTTA	21 GRF	2010.0	2023	35.0	11.4	4.2		
	8800	SGMR	4 S/F	2011.6	2014.8	4.2D	55			
	2695	PENT	1 S	2012.0	2014	3.5	7.8	3.6		
	15400	SGMR	4 S/F	2012.0	2013.1	4.0	93			
	4995	SGMR	4 S/F	2012.0	2013.8	3.5D	15			
	9400	HUAN	C	2012.0	2013.1	3.2	85.4	44.4		R
	4995	PALE	4 S/F	2012.3	2013.8	3.0	61			
	8800	PALE	4 S/F	2012.3	2013.1	6.8	110			
	15400	PALE	47 GB	2013.5	2014.1	.1	23			
	9400	HUAN	PBI	2015.2	2015.2	29.0	16.7	7.1		R
	2695	PALE	8 S	2017.5	2017.6	.1	15			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

DECEMBER 1980

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
					UT	UT	MINUTES	PEAK	MEAN		
19	9400	TYKW	5	S	2358.0	2358.8	3.0	6	2		
20	127	TORN	44	NS	0720.0E	0837.8	430.0D	130	2.8		V0
	260	ONDR	43	NS	1018.0	1018.8	199.0D	81			
	260	ONDR	43	NS	1018.0D	1018.8	199.0D	81			
	245	SGMR	43	NS	1306.3	1515.1	480.7D	270			
	200	HIRA	44	NS	2145.0E	0040	440.0D	8	5		0
	3750	TYKW	21	GRF	0005.0	0140	170.0	11	5		
	3750	TYKW	5	S	0010.0	0010.6	2.0	2	1		
	3750	TYKW	5	S	0111.5	0113.2	8.0	10	4		
	9400	TYKW	45	C	0112.0	0115.0	20.0	6	1		
	4995	LEAR	8	S	0112.6	0113.3	1.5	15			
	8800	PALE	47	GB	0112.8	0115.3	4.2	21			
	4995	PALE	8	S	0112.8	0113.1	.3	19			
	3750	TYKW	5	S	0127.0	0128.6	8.0	5	2		
	3750	TYKW	45	C	0144.0	0148.3	25.0	10	3.5		
	3750	TYKW	5	S	0216.0	0217.0	7.0	7	2		
	4995	LEAR	8	S	0216.6	0216.8	.2	11			
	3750	TYKW	5	S	0227.6	0228.0	.8	2	.5		
	2000	TYKW	5	S	0227.7	0228.0	.6	3	1		
	3750	TYKW	5	S	0231.4	0231.6	1.3	5	1.5		
	2000	TYKW	5	S	0231.4	0231.6	1.3	4	1		
	245	LEAR	4	S/F	0245.0	0246.3	4.1	48			
	3750	TYKW	5	S	0328.0	0331	20.0	3	1.5		
	3750	TYKW	21	GRF	0328.0	0359	140.0	4	1.5		
	2000	TYKW	20	GRF	0350.0	0359	40.0	3	1		
	3750	TYKW	5	S	0433.0	0437	15.0	3	1		
	3750	TYKW	20	GRF	0510.0	0520	30.0	3	1.5		
	2000	TYKW	20	GRF	0515.0	0520	30.0	2	1		
	3100	CRIM	26	FAL	0732.0	0848.0		9			
	204	IZMI	41	F	0824.0	0825.5	3.0	640			
	234	POTS	4	S/F	0825.3	0825.4	.4	525	50		III
	930	BORD	8	S	0859.0	0859	.6	31	2		
	810	KRAK	8	S	0907.3	0907.3	.1	60			
	204	IZMI	45	C	1018.0	1018.5	1.5	530	230		
	100	GORK	46	C	1018.1	1018.2	1.3	180 D			
	100	GORK			1018.1	1018.6		180 D			
	234	POTS	4	S/F	1018.5	1018.9	.9	300	10		III
	9100	GORK	1	S	1049.1	1049.6	2.4	20	10		
	5200	BERN	1	S	1049.3	1049.7	2.0	16.0			ONLY PAPER REC
	3200	BERN	1	S	1049.3	1049.7	2.0	.0			ONLY PAPER REC
	810	KRAK	1	S	1240.5	1240.6	.2	11			
	5200	BERN	3	S	1322.5	1324.3	30.0	107.0			
	8400	BERN	3	S	1322.5	1324.3	28.0	281.0			
	11800	BERN	3	S	1322.5	1324.3	26.0	253.0			
	3200	BERN	3	S	1322.6	1324.3	30.0	.0			ONLY PAPER REC
	4995	SGMR	4	S/F	1323.5	1324.3	4.0D	119			
	2695	ATHN	4	S/F	1323.6	1324.3	7.5D	15			
	15400	SGMR	4	S/F	1323.8	1324.3	2.8	110			
	2695	SGMR	4	S/F	1323.8	1324.3	2.3D	11			
	8800	ATHN	4	S/F	1323.8	1324.3	4.8	390			
	8800	SGMR	4	S/F	1323.8	1324.3	3.5D	250			
	3000	POTS	3	S	1323.8	1324.2	3.7	23			
	9400	HUAN		S	1323.8	1324.3	3.7	209.1	53.1		L
	9500	POTS	3	S	1323.9	1324.1	6.1	175			
	2650	DWIN	1	S	1324.0	1324.5	2.0	15	10		
	10715	DWIN	1	S	1324.0	1324.5	5.0	220	100		
	19600	BERN	3	S	1324.0	1324.3	5.0	114.0			
	9400	HUAN		PBI	1327.5	1327.5	30.6	10.2	3.1		L
	2800	OTTA	21	GRF	1535.0	1639	110.0	8.6	3.0		
	2800	OTTA	1	S	1552.7	1552.8	1.0	2.8	1.4		
	2800	OTTA	8	S	1555.0	1555.2	0.7	9.2	4.6		
	245	SGMR	47	GB	1702.1	1705.1	16.0D	2600			
	1415	SGMR	8	S	1704.0	1704.6	1.5D	35			
	2695	SGMR	8	S	1704.6	1704.8	.7	46			
	606	SGMR	47	GB	1704.6	1705.1	8.0D	170			
	410	SGMR	47	GB	1705.1	1705.1	10.4D	320			
	9400	HUAN		S	1707.3	1711.2	18.7	6.8	5.1		0
	9400	HUAN		S	2011.8	2012.4	1.6	35.7	17.8		R
	15400	SGMR	8	S	2012.0	2012.5	1.1	17			
	8800	SGMR	8	S	2012.1	2012.5	1.5D	17			
	245	PALE	47	GB	2044.3	2045.1	2.5	930			
	2800	OTTA	2	S/F	2046.0	2051.8	8.0	8.6			
	410	PALE	8	S	2046.3	2046.6	.5	230			
21	245	LEAR	43	NS	0013.8	0400.0	634.2D	95			
	245	SGMR	43	NS	1657.6	1724.0	38.4D	72			
	100	HIRA	44	NS	2145.0E	0121	540.0D	150	85		WL
	200	HIRA	44	NS	2145.0E	0015	260.0D	15	5		WL
	245	LEAR	43	NS	2222.0	2255.1	114.0D	160			
	410	LEAR	43	NS	2227.5	2254.6	86.6	71			
	606	LEAR	43	NS	2231.5	2254.5	71.6	480			
	1000	TYKW	45	C	0042.5	0042.9	2.5	11	1.5		
	3750	TYKW	20	GRF	0110.0	0155	80.0	5	2.5		
	1000	TYKW	45	C	0221.4	0221.7	.6	4.5	1		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

DECEMBER 1980

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} MEAN	INT	POLARIZATION OR REMARKS
21	2000	TYKW	5	S	0221.4	0221.6	1.0	3	.6		
	3750	TYKW	28	PRE	0240.0	0243.0	27.0	4	2		
	2000	TYKW	28	PRE	0300.0	0309	9.0	2	1		
	3750	TYKW	5	S	0307.0	0311.0	13.0	33	12		
	2000	TYKW	5	S	0309.0	0311	6.0	5.5	3.5		
	9400	TYKW	5	S	0310.0	0312	5.0	2	1		
	2695	LEAR	8	S	0310.8	0310.8	.2	11			
	4995	LEAR	8	S	0310.8	0310.8	.3	10			
	2000	TYKW	30	PBI	0315.0		55.0	3.5	2		
	3750	TYKW	30	PBI	0320.0		60.0	6	2.5		
	2000	TYKW	8	S	0333.2	0333.3	.3	9	2		F
	200	HIRA	46	C	0359.6	0402	2.8	1100	270		0
	100	HIRA	46	C	0359.8	0401.6U	3.2	360 U			
	500	HIRA	46	C	0400.0	0401.1	2.0	50	20		SR
	2000	TYKW	45	C	0400.0	0400.9	8.0	17	3		
	9400	TYKW	5	S	0400.0	0401.1	12.0	7	3		
	1000	TYKW	45	C	0400.0	0400.4	3.0	11	2.5		
	3750	TYKW	45	C	0400.0	0401.1	8.0	8	3		
	3100	CRIM	26	FAL	0700.0	0900.0		9			
	113	POTS	4	S/F	0745.1	0745.2	.3	140	40		
	127	TORN	8	S	1152.6	1152.9	.7	100	50		
	113	POTS	8	S	1152.8	1152.9	.3	190	60		
	245	SGMR	4	S/F	1642.0	1646.8	9.5	150			
	9400	HUAN		S	1916.7	1926.5	27.0	5.0	2.1		0
	2800	OTTA	1	S	2133.0	2133.2	1.0	9.8	4.9		
	2695	LEAR	4	S/F	2206.5	2208.3	2.3	16			
	4995	LEAR	4	S/F	2206.8	2208.3	2.2	20			
	410	LEAR	47	GB	2228.3	2229.5	4.5	139			
	606	LEAR	4	S/F	2232.6	2234.5	3.4	31			
	245	PALE	47	GB	2250.8	2306.6	32.8	110			
	606	PALE	47	GB	2251.8	2254.0	38.2	530			
	1000	TYKW	42	SER	2252.0	2304.4	32.0	410	30 U		
	410	PALE	4	S/F	2253.6	2254.6	6.4	45			
	100	HIRA	27	RF	2258.5	2326.3	92.0	420	190		WL
	1000	TYKW	42	SER	2338.0	2339.9	13.0	7	1		
22	245	LEAR	43	NS	0525.3	0759.1	322.7	130			
	100	GORK	44	NS	0626.0E		313.0D		5		
	127	TORN	44	NS	0720.0E	0855.5	430.0D	110	8		V1
	260	ONDR	44	NS	0854.0E		336.0D	29			
	260	ONDR	44	NS	0854.0E		336.0D	29			
	200	GORK	43	NS	1010.0D		90.0D		5		
	245	SGMR	43	NS	1216.0E	1313.0	5.7U	17			
	100	HIRA	44	NS	2145.0E	0257	580.0D	140	55		ML
	3750	TYKW	28	PRE	0120.0	0230	41.0	5	3.5		
	2000	TYKW	5	S	0200.0	0206.4	20.0	9	3.5		
	3750	TYKW	45	C	0201.0	0206.4	38.0	16	9		
	9400	TYKW	5	S	0205.0	0218	25.0	6	3		
	1000	TYKW	45	C	0207.6	0208.0	.8	25	5		
	2000	TYKW	29	PBI	0220.0		100.0	4	2		
	3750	TYKW	29	PBI	0239.0		90.0	7	4.5		
	3100	CRIM	26	FAL	0702.0	0720.0		7			
	606	LEAR	8	S	0802.8	0803.1	.7	180			
	606	LEAR	47	GB	0806.0	0806.1	.8	500			
	113	POTS	4	S/F	0834.5	0834.7	.6	770	35		III
	3100	CRIM	1	S	1055.0	1056.5	2.0	4	1		
	3100	CRIM	1	S	1115.0	1117.0	5.0	5	1		
	3100	CRIM	29	PBI	1115.0	1120.0	14.0	3	1		
	810	KRAK	8	S	1133.8	1134.0	.2	11			
	810	KRAK	41	F	1251.2	1251.5	1.2	23	4		
	536	ONDR	8	S	1345.8	1345.8	.3	77			
	536	ONDR	8	S	1345.8	1345.8	.3	77			
	930	BORD	42	SER	1455.1	1506.2	12.9	219	2		
	606	SGMR	8	S	1500.1	1501.6	1.7D	320			
	410	SGMR	8	S	1500.1	1502.0	2.0D	119			
	245	SGMR	8	S	1500.6	1501.6	1.5D	150			
	2695	SGMR	8	S	1500.8	1501.0	.5	22			
	1415	SGMR	8	S	1500.8	1501.6	1.2D	47			
	9400	HUAN		S	2025.5	2040.2	26.3	6.6	4.5		0
23	200	HIRA	43	NS	0120.0	0400	240.0D	10	5		WL
	100	GORK	44	NS	0632.0E		296.0D		10		
	200	GORK	44	NS	0640.0D		288.0D		5		
	127	TORN	44	NS	0720.0E	1255.6	430.0D	1450	13		V1
	260	ONDR	44	NS	0930.0E		274.0D	20			
	260	ONDR	44	NS	0930.0E		274.0D	20			
	2000	TYKW	45	C	0048.0	0052.0	8.0	20	7		
	3750	TYKW	21	GRF	0048.0	0115	80.0	6	3		
	3750	TYKW	45	C	0048.0	0052.0	20.0	22	5		
	4995	LEAR	4	S/F	0049.0	0052.3	4.1	10			
	2695	LEAR	47	GB	0049.8	0052.0	4.5D	40			
	9400	TYKW	20	GRF	0050.0	0115	60.0	5	2.5		
	2000	TYKW	29	PBI	0056.0		40.0	2	1		
	245	PALE	8	S	0323.3	0323.8	1.3	99			
	245	PALE	4	S/F	0328.6	0329.1	2.5	70			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

DECEMBER 1980

DAY OF MONTH	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	POLARIZATION OR REMARKS
23	245	PALE	4 S/F	0333.1	0334.1	2.5	130			
	3750	TYKW	45 C	0450.0	0450.2	4.0	7	2		
	9400	TYKW	45 C	0450.0	0450.2	3.0	25	6		
	2000	TYKW	5 S	0450.0	0450.2	3.0	3	1		
	113	POTS	4 S/F	0819.2	0819.3	.2	700	70		III
	810	KRAK	8 S	0924.5	0924.5	.1	69			
	810	KRAK	8 S	1126.0	1126.1	.2	11			
	113	POTS	8 S	1251.4	1251.4	.3	770	250		III
	234	POTS	4 S/F	1341.1	1341.6	.6	100	10		III
	930	BORD	46 C	1452.4	1452.7	1.3	25	3		
	930	BORD	41 F	1505.3	1505.6	1.6	20	2		
	606	SGMR	8 S	1755.1	1755.1	.2D	20			
	410	SGMR	8 S	1755.1	1756.0	1.4D	240			
	245	SGMR	8 S	1755.1	1755.3	1.0D	11			
	1415	SGMR	8 S	1755.1	1755.6	2.0	08			
	410	PALE	8 S	1755.3	1755.8	.7	130			
	2800	OTTA	1 S	1755.7	1756	1.0	3.2	1.6		
	2695	PENT	1 S	2114.0	2115.5	3.0	2.8	1.6		
	245	PALE	4 S/F	2114.3	2115.5	3.2	170			
	245	LEAR	8 S	2336.6	2337.0	1.4	130			
24	200	GORK	44 NS	0629.0E		300.0D		5		
	127	TORN	44 NS	0720.0E	0916.2	430.0D	80	2.8		V1
	260	ONDR	44 NS	0833.0E		322.0D	71	3		
	260	ONDR	44 NS	0833.0E		322.0D	71	3		
	245	LEAR	43 NS	2159.0	0935.6	770.0D	130			
	245	LEAR	4 S/F	0051.3	0052.0	4.5	17			
	200	HIRA	46 C	0149.0	0149.0	.7	300	60		
	245	LEAR	8 S	0209.5	0210.0	1.0	59			
	245	LEAR	8 S	0250.1	0250.8	1.9D	62			
	100	HIRA	46 C	0250.1	0251.0	2.3	1900	180		0
	200	HIRA	46 C	0250.2	0250.8	1.6	190	65		0
	410	LEAR	8 S	0250.3	0251.1	1.7D	87			
	606	LEAR	8 S	0250.8	0251.0	.3	65			
	606	LEAR	8 S	0454.1	0454.5	.9	24			
	410	LEAR	8 S	0454.3	0454.5	1.0D	100			
	204	IIMI	8 S	0748.5	0749.0	.5	800	600		
	410	LEAR	8 S	0809.3	0810.0	1.0	27			
	245	LEAR	8 S	0809.5	0810.0	.8D	70			
	606	LEAR	8 S	0848.3	0849.1	.8	31			
	410	LEAR	47 GB	0848.5	0849.1	.8D	530			
	245	LEAR	47 GB	0848.6	0849.0	.9D	2000			
	430	KRAK	42 SER	0852.0	1054.5	125.0	160			
	245	LEAR	8 S	0944.3	0944.6	1.0D	110			
	410	LEAR	8 S	0944.5	0945.1	.8	320			
	204	IIMI	5 S	1000.8	1001.0	1.0	110	70		
	113	POTS	4 S/F	1001.7	1002.1	3.3	200	15		III
	245	LEAR	8 S	1002.6	1002.8	1.5	51			
	204	IIMI	41 F	1035.2	1036.0	1.8	50			
	810	KRAK	8 S	1128.0	1128.2	.3	17			
	810	KRAK	8 S	1143.5	1143.7	.2	13			
	127	TORN	7 C	1217.5	1718.0	2.2	160			
	127	TORN	4 S/F	1235.3	1235.5	.9	240	120		
	113	POTS	4 S/F	1235.4	1235.6	.5	120	40		III
	5200	BERN	2 S/F	1245.7	1247.3	9.0	16.0			ONLY PAPER REC
	3200	BERN	2 S/F	1245.7	1247.3	9.0	.0			ONLY PAPER REC
	930	BORD	41 F	1246.8	1247.4	.8	27	2		
	810	KRAK	8 S	1248.0	1248.0	.3	38			
	430	KRAK	8 S	1304.3	1304.5	.7	190			
	113	POTS	42 SER	1317.6	1318.9	5.0	140	3		III
	2800	OTTA	20 GRF	1423.0	1425	47.0	3.8	1.9		
	2800	OTTA	8 S	1541.5	1541.7	0.3	0.2			
	410	LEAR	8 S	2230.1	2230.3	.7	53			
	245	LEAR	8 S	2230.1	2230.6	1.0D	110			
25	200	HIRA	43 NS	0120.0	0130	360.0D	5	3		WR
	100	GORK	44 NS	0629.0E		300.0U		5		
	200	GORK	44 NS	0632.0E		298.0D		10		
	204	IIMI	44 NS	0700.0E		300.0D	40			
	127	TORN	44 NS	0720.0E	1250.4	430.0D	400	.8		V1
	260	ONDR	44 NS	0844.0E		326.0D	101	21		
	260	ONDR	44 NS	0844.0E		326.0D	101	21		
	536	ONDR	43 NS	0940.0D		270.0D	65	4		
	536	ONDR	43 NS	0940.0		270.0D	65	4		
	245	SGMR	43 NS	1217.0	1950.0	533.0D	430			
	606	SGMR	43 NS	1217.0	1913.3	533.0D	139			
	410	SGMR	43 NS	1217.0	1913.1	533.0D	200			
	245	PALE	43 NS	1726.0E	2332.8	366.0U	460			
	200	HIRA	44 NS	2148.0E	0344.3	580.0D	1100	230		MR
	100	HIRA	44 NS	2148.0E	0343	580.0D	600	140		SR
	245	LEAR	43 NS	2159.0	0517.3	770.0D	1700			
	410	LEAR	43 NS	2159.0	0759.0	770.0D	300			
	606	LEAR	43 NS	2245.0	0800.3	724.0D	119			
	9400	TYKW	20 GRF	0220.0	0240	120.0	10	6		
	2000	TYKW	21 GRF	0223.0	0229	110.0	10	3.5		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

DECEMBER 1980

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
					UT	UT	MINUTES	PEAK	MEAN		
25	1000	TYKW	5	S	0223.0	0228.5	10.0	8	3		
	3750	TYKW	21	GRF	0224.0	0230	110.0	11	7		
	1000	TYKW	29	PBI	0233.0		65.0	2.5	1.5		
	2000	TYKW	5	S	0317.0	0317.4	1.0	5	1.5		
	3750	TYKW	5	S	0317.0	0317.4	1.0	2	.7		
	410	LEAR	4	S/F	0451.5	0458.1	7.3D	15			
	245	LEAR	8	S	0457.5	0458.0	1.3D	200			
	606	LEAR	8	S	0457.6	0458.0	1.0	13			
	2950	GORK	3	S	0616.7	0616.9	1.1	34	17		
	2000	TYKW	5	S	0627.0	0627.7	2.0	4	1.5		
	9400	TYKW	5	S	0627.0	0627.7	2.0	10	3		
	1000	TYKW	5	S	0627.5	0627.8	1.5	2	.7		
	3750	TYKW	5	S	0627.5	0627.8	1.5	4	1.5		
	2950	GORK	1	S	0628.3	0628.4	1.0	6	3		
	245	LEAR	4	S/F	0646.1	0647.3	2.9D	70			
	410	LEAR	4	S/F	0646.5	0647.3	3.5D	39			
	606	LEAR	8	S	0648.1	0648.6	1.2	85			
	950	GORK	2	S/F	0648.2	0649.3	3.2	8			
	650	GORK	46	C	0648.3	0649.3	1.9	35			
	650	GORK			0648.3	0649.6		35			
	650	GORK			0648.3	0649.9		35			
	410	LEAR	47	GB	0703.0	0703.8	1.0D	1199			
	245	LEAR	47	GB	0703.3	0703.6	1.0D	2800			
	2000	TYKW	5	S	0703.4	0703.7	1.0	6	2		
	1000	TYKW	5	S	0703.4	0703.7	1.0	89	13		
	606	LEAR	8	S	0703.6	0703.8	.5	400			
	8800	LEAR	4	S/F	0715.8	0716.8	2.5D	67			
	15000	KISV	8	S	0716.0	0716.7	3.0	34			
	4995	LEAR	4	S/F	0716.1	0716.8	2.4D	23			
	9100	GORK	3	S	0716.2	0717.0	2.8	55	28		
	15400	LEAR	8	S	0716.3	0716.6	1.3	44			
	2695	LEAR	4	S/F	0716.3	0716.6	3.3D	55			
	2000	TYKW	5	S	0716.5	0716.7	1.0	27	8		
	650	GORK	23	GRF	0722.5U	1004.5	247.0E	26	4		
	950	GORK	2	S/F	0727.8	0728.4	1.6	5.5			
	650	GORK	4	S/F	0801.6	0801.9	.7	66			
	606	LEAR	8	S	0801.8	0801.8	.5	119			
	234	POTS	8	S	0830.1	0830.1	.1	170	60		III
	113	POTS	45	C	0845.1	0849.1	4.3	1800	40		III
	100	GORK			0846.0	0846.6		70	D		
	100	GORK	41	F	0846.0	0846.1	4.0	70	D		
	100	GORK			0846.0	0849 U		70	D		
	930	BORD	42	SER	0846.0	0849.1	3.0	66	2		
	234	POTS	41	F	0847.8	0849.0	1.4	1400	20		III
	200	GORK	4	S/F	0848.0	0849.2	1.8	40	D		
	204	IZMI	45	C	0848.5	0849.0	1.3	1350	600		
	950	GORK	2	S/F	0848.6	0849.1	.8	15			
	127	TORN	47	GB	0848.7	0849.2	1.0	3500	1700		
	950	GORK	20	GRF	0957.0	1007.8	48.0	6.5			
	127	TORN	8	S	1048.0	1048.5	.8	1800	900		
	204	IZMI	5	S	1048.0	1048.2	1.0	590	370		
	234	POTS	4	S/F	1048.2	1048.4	.7	360	10		III
	113	POTS	4	S/F	1048.2	1048.5	.5	550	100		III
	113	POTS	4	S/F	1249.6	1250.0	.7	150	15		III
	234	POTS	4	S/F	1249.7	1249.1	.5	350	20		III
	113	POTS	42	SER	1354.5	1359.0	5.5	800	50		III
	930	BORD	41	F	1359.0	1401.2	2.3	19	2		
	2800	OTTA	27A	RF	1805.0		165.0	3.6	2.4		
	2800	OTTA	24	R	1805.0	1815	10.0	2.6	1.3		
	2800	OTTA	24P	R	1815.0		135.0	2.6			
	2800	OTTA	4	S/F	1913.0	1913.5	2.0	11.6	2.9		
	245	PALE	47	GB	1917.1	1939.6	77.7	360			
	410	PALE	47	GB	1919.6	1921.3	75.2	34			
	606	PALE	47	GB	1932.1	1934.1	62.7	20			
	9400	HUAN		S	1957.7	2005.2	26.3	5.2	2.3		L
	2800	OTTA	26	FAL	2030.0	2050	20.0	-2.6	-1.3		
	9400	HUAN		S	2051.6	2052.0	1.6	20.6	8.9		L
	2800	OTTA	3	S	2051.7	2052.2	2.0	13.6	5.0		
	500	HIRA	24	R	2150.0E	2330	570.0D	250	70		SR
	410	PALE	8	S	2212.6	2213.1	1.7	40			
	245	PALE	8	S	2212.8	2213.1	1.5	86			
	1000	TYKW	45	C	2250.0	2358.1	250.0	190	25		
	2000	TYKW	42	SER	2319.0	2331.3	27.0	9	1		
	2000	TYKW	45	C	2356.0	2358.0	3.0	16	3		
26	200	GORK	44	NS	0631.0E		307.0D		130		
	100	GORK	44	NS	0643.0E		260.0D		200		
	204	IZMI	44	NS	0700.0E		300.0D	120			
	113	POTS	44	NS	0714.0E	1400.0	416.0D	1700			
	234	POTS	44	NS	0720.0E	0806.0	406.0D	575			
	127	TORN	44	NS	0720.0E		440.0D		2200		V0
	430	KRAK	44	NS	0800.0E	0815.5	360.0D	400	30		
	260	ONDR	44	NS	0835.0E		355.0D	81	21		
	536	ONDR	44	NS	0835.0E		355.0D	52	6		
	536	ONDR	44	NS	0835.0E		355.0D	52	6		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

DECEMBER 1980

DAY OF MONTH	FREQUENCY	STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
				UT	UT	MINUTES	PEAK	MEAN		
26	260	ONDR	44 NS	0835.0E		355.0D	81	21		
	245	PALE	43 NS	1726.0E	1847.8	615.0D	420			
	200	HIRA	44 NS	2147.0E	0248	580.0D	600	440		MR
	100	HIRA	44 NS	2147.0E	0400	580.0D	4500	2000		SR
	410	LEAR	43 NS	2159.0	2200.8	770.0D	96			
	245	LEAR	43 NS	2159.0	0210.3	770.0D	420			
	3750	TYKW	5 S	0015.6	0015.8	1.5	4	1.5		
	4995	PALE	4 S/F	0225.8	0232.3	13.3	82			
	606	PALE	4 S/F	0226.1	0232.1	13.0	49			
	245	LEAR	47 GB	0348.6	0349.1	.7	1300			
	100	HIRA	46 C	0623.0	0624.3	2.0	4900	1900		WL
	4995	LEAR	4 S/F	0623.5	0624.1	2.3D	06			
	2695	LEAR	8 S	0623.5	0623.8	1.3D	33			
	8800	LEAR	4 S/F	0623.6	0624.1	2.2	09			
	650	GORK	23 GRF	0636.0E	0758.9	300.0E	60	18		
	100	GORK		0647.8	0652.4		700 D			
	100	GORK	46 C	0647.8	0651.3	6.8	700 D			
	3100	CRIM	3 S	0712.5	0714.7	4.0	30	10		
	2950	GORK	21 GRF	0716.2	0742.0	240.0E	15			
	606	MANI	47 GB	0717.0	0733.1	23.0D	85			
	3100	CRIM	26 FAL	0717.0	1000.0		12			
	606	LEAR	47 GB	0717.3	0733.1	21.7D	400			
	8800	ATHN	4 S/F	0718.8	0727.0	17.0	130			
	8800	LEAR	47 GB	0718.8	0727.0	23.5D	119			
	2695	ATHN	4 S/F	0718.8	0727.0	15.5D	49			
	410	LEAR	47 GB	0718.8	0729.8	20.0D	280			
	1415	MANI	47 GB	0719.0	0728.5	14.1D	70			
	4995	LEAR	47 GB	0719.0	0727.0	22.5D	88			
	9100	GORK	21 GRF	0719.0	0731.5	33.5	30			
	1415	ATHN	4 S/F	0719.1	0728.3	19.5D	60			
	2695	MANI	4 S/F	0719.1	0727.1	10.0D	50			
	2695	LEAR	47 GB	0719.1	0719.6	22.7D	46			
	8800	MANI	4 S/F	0719.1	0727.1	9.4	139			
	4995	MANI	4 S/F	0719.1	0727.1	9.7D	139			
	15400	LEAR	47 GB	0719.1	0727.0	21.9	64			
	2950	GORK	46 C	0719.2	0719.7	140.0	30			
	2950	GORK		0719.2	0727.0		30			
	9100	GORK	4 S/F	0719.3	0719.8	2.9	46			
	245	LEAR	47 GB	0722.5	0728.1	11.6D	1300			
	15000	KISV	45 C	0724.0	0733.1	12.0	49			
	15000	KISV	45 C	0725.0E	0725.7		36			
	9100	GORK	4 S/F	0725.9	0727.1	4.8	80			
	950	GORK		0726.3	0736.3		47			
	950	GORK	46 C	0726.3	0729.5	12.4	65			
	950	GORK	21 GRF	0726.3	0754.0	144.0	8			
	100	GORK	46 C	0730.0E	0730.5U	2.6E	11500 D			
	100	GORK		0730.0E	0731.7		11500 D			
	100	GORK	46 C	0730.0E	0731.4		11500 D			
	650	GORK	46 C	0730.2U	0730.3U	8.8U	200			
	200	GORK	4 S/F	0731.0E	0731.5	1.0D	2500 D			
	650	GORK		0733.2	0733.2		200			
	100	GORK	4 S/F	0747.0	0751.9	8.0	11600 D			
	5200	BERN	3 S	0758.1	0758.8	1.5	38.0			ONLY PAPER REC
	606	LEAR	8 S	0815.5	0815.8	.6	240			
	410	LEAR	47 GB	0815.6	0815.6	.7D	150			
	9400	HUAN	S	1352.0	1355.3	17.3	8.4	2.8		L
	930	BORD	46 C	1353.0	1354.7	5.0	55	3		
	3750	TYKW	5 S	2304.0	2305.1	3.0	3	1		
	9400	TYKW	5 S	2304.5	2305.2	1.5	2.5	1		
	3750	TYKW	20 GRF	2334.0	2347	55.0	7	2.5		
27	200	GORK	44 NS	0626.0E		304.0D		90		
	100	GORK	44 NS	0630.0E		300.0D		200		
	204	IZMI	44 NS	0700.0E		300.0D	100			
	127	TORN	44 NS	0720.0E	1416.3	440.0D	1300	1350		V0
	234	POTS	44 NS	0720.0E	1009.0	400.0D	500			
	113	POTS	44 NS	0720.0E	1009.0	400.0D	1000			
	260	ONDR	44 NS	0840.0E		346.0D	115	26		
	260	ONDR	44 NS	0840.0E		346.0D	115	26		
	410	SGMR	43 NS	1218.0	1825.3	533.0D	119			
	245	SGMR	43 NS	1218.0	1502.3	533.0D	450			
	245	PALE	43 NS	1727.0	1802.6	614.0D	92			
	410	PALE	43 NS	1727.0	1749.1	614.0D	76			
	200	HIRA	44 NS	2147.0E	2337	580.0D	50	8		MR
	100	HIRA	44 NS	2147.0E	0046	580.0D	100	40		MR
	245	LEAR	43 NS	2159.0	0749.6	773.0D	110			
	500	HIRA	8 S	0240.0	0240.0	.3	60			MR
	606	LEAR	4 S/F	0326.6	0828.3	303.4	59			
	2000	TYKW	20 GRF	0433.0	0436	30.0	3	1		
	3750	TYKW	20 GRF	0433.0	0439	30.0	3	1.5		
	245	LEAR	4 S/F	0538.8	0543.6	9.5	190			
	3750	TYKW	20 GRF	0539.0	0541	50.0	6	2		
	2000	TYKW	20 GRF	0539.0	0541.5	30.0	4	1		
	9400	TYKW	5 S	0539.0	0540.2	13.0	6	1.5		
	4995	LEAR	4 S/F	0539.1	0540.1	11.0	13			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

DECEMBER 1980

DAY OF MONTH	FREQUENCY	STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
				UT	UT	MINUTES	PEAK	MEAN		
27	8800	LEAR	4 S/F	0539.3	0540.1	11.7	21			
	200	GORK	27 RF	0646.3	0656.3	13.7	1120			
	1415	ATHN	4 S/F	0743.5	0748.1	10.1D	31			
	650	GORK	1 S	0746.0	0746.2	.9	3.5			
	2695	ATHN	4 S/F	0746.3	0748.1	7.2D	08			
	8800	ATHN	4 S/F	0746.6	0749.0	5.7	22			
	5200	BERN	22 GRF	0812.0	0822.6	57.0	16.0			ONLY PAPER REC
	430	KRAK	42 SER	0817.5	0912.5	117.0	200			
	410	LEAR	4 S/F	0820.8	0821.0	463.1	82			
	410	LEAR	4 S/F	0826.3	0828.0	4.3D	69			
	650	GORK	4 S/F	0826.4	0828.1	3.2	39	6		
	950	GORK	2 S/F	0827.0	0828.0	2.6	8.6			
	245	LEAR	8 S	0827.3	0828.0	1.7D	139			
	810	KRAK		0827.5	0911.5		100			
	810	KRAK	42 SER	0827.5	0828.5	45.0	66			
	200	GORK	4 S/F	0827.8	0827.9	1.2	560			
	430	KRAK	27 RF	0837.5	0940 U	127.0	50	35		
	536	ONDR	42 SER	0903.0	0912.6	62.0	28			
	536	ONDR	42 SER	0903.0	0912.6	62.0	28			
	950	GORK	1 S	0909.4	0910.5	3.7	13.5			
	650	GORK	4 S/F	0910.0	0910.5	1.9	35			
	200	GORK	4 S/F	0910.4	0910.5	2.3	1720			
	410	LEAR	4 S/F	0910.8	0912.1	2.5D	139			
	245	LEAR	47 GB	0911.1	0912.1	2.2D	700			
	606	LEAR	4 S/F	0911.1	0911.3	2.2	65			
	930	BORD	41 F	0911.2	0911.4	.2	60	2		
	950	GORK	21 GRF	1000.9	1012.5	33.0	3.5			
	11800	BERN	46 C	1003.2	1009.6	51.0	117.0			ONLY PAPER REC
	8400	BERN	46 C	1003.2	1009.6	57.0	167.0			ONLY PAPER REC
	5200	BERN	46 C	1003.2	1009.6	57.0	144.0			ONLY PAPER REC
	200	GORK	46 C	1003.3	1008.0	17.6	1550			
	650	GORK	28 PRE	1004.8	1004.9	.4	10			
	2695	LEAR	4 S/F	1006.1	1016.6	12.2	130			
	204	IZMI	41 F	1006.5	1011.8	11.5	2200			
	2950	GORK		1006.7	1015.7		93			
	650	GORK		1006.7	1015.9		130			
	2950	GORK	46 C	1006.7	1009.0	9.5	36			
	650	GORK		1006.7	1015.4		160			
	650	GORK		1006.7	1014.6		530			
	650	GORK	46 C	1006.7	1009.0	21.1	70			
	410	LEAR	47 GB	1006.8	1013.3	16.3	540			
	245	LEAR	47 GB	1006.8	1018.1	24.5	1800			
	950	GORK	4 S/F	1007.2	1007.5	2.5	40			
	430	KRAK	46 C	1007.2	1013.0	14.5	400	70		
	9100	GORK	29 PBI	1007.3	1016.4	54.0	24			
	9100	GORK		1007.3	1015.7		200			
	9100	GORK	46 C	1007.3	1009.0	9.0	130			
	536	ONDR	46 C	1007.3	1016.2	23.0	62	16		
	536	ONDR	46 C	1007.3	1016.2	23.0	62	16		
	4995	LEAR	4 S/F	1007.6	1009.6	13.4	119			
	8800	LEAR	47 GB	1007.6	1009.8	13.2	119			
	808	ONDR	45 C	1007.7	1016.2	13.0	45	9		
	808	ONDR	45 C	1007.7	1016.2	13.0	45	9		
	8800	ATHN	4 S/F	1007.8	1010.1	15.3	180			
	606	LEAR	47 GB	1007.8	1015.3	15.8	290			
	33	UPIC	45 C	1008.0	1008.4	2.8				
	1415	ATHN	4 S/F	1008.0	1016.3	10.6D	31			
	2650	DWIN	45 C	1008.0	1016	10.0	150	50		
	10715	DWIN	4 S/F	1008.0	1009	3.0	100	50		
	1470	POTS	4 S/F	1008.0	1009.8	2.5	9.2			
	9500	POTS	29 PBI	1008.0	1009.4	49.0	105			
	3000	POTS	29 PBI	1008.0	1009.5	42.0	45			
	930	BORD	46 C	1008.0	1008.3	14.0	120	6		
	15000	KISV	8 S	1008.6	1008.5	3.0	46			
	2695	ATHN	4 S/F	1008.1	1016.5	10.4D	139			
	29	UPIC	45 C	1008.2	1009.2	1.1				
	810	KRAK	46 C	1008.5	1015.5	14.0	100	6		
	200	GORK		1012.1	1012.1		6450			
	950	GORK	4 S/F	1013.8	1015.4	3.1	15			
	1470	POTS	4 S/F	1014.6	1015.6	3.4	22			
	9500	POTS	4 S/F	1015.0	1016.5	2.0	52			
	3000	POTS	4 S/F	1015.3	1016.5	2.7	96			
	950	GORK	4 S/F	1019.1	1019.7	1.1	12			
	2800	OTTA	240 R	1433.0	1442	9.0	4.0	2.0		
	2650	DWIN	2 S/F	1443.0	1443.5	1.0	40	20		
	2800	OTTA	4 S/F	1443.0	1443.6	1.0	16.0	8.0		
	2800	OTTA	20 GRF	1800.0	1810	100.0	8.2	5.0		
	1000	TYKW	8 S	2225.8	2225.9	.3	19	5		
	410	LEAR	8 S	2240.8	2241.0	.3	170			
	606	LEAR	8 S	2240.8	2241.0	.7	119			
	245	LEAR	47 GB	2240.8	2241.0	.5	550			
	500	HIRA	46 C	2241.1	2241.2	.6	140	50		SR
	100	HIRA	46 C	2241.2	2241.7	1.4	55000	6100		0
	3750	TYKW	5 S	2241.3	2241.6	.7	12	5		
	9400	TYKW	5 S	2241.3	2241.6	.6	5	2		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

DECEMBER 1980

DAY OF MONTH	FREQUENCY	STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
				UT	UT	MINUTES	PEAK	MEAN		
27	1000	TYKW	5 S	2241.3	2241.6	.7	26	4		
	2000	TYKW	5 S	2241.3	2241.6	.7	6	2		
	606	PALE	8 S	2241.3	2241.5	.5	60			
	410	PALE	8 S	2241.3	2241.5	1.0	119			
	245	PALE	47 GB	2241.3	2241.5	2.3	600			
	1000	TYKW	45 C	2313.3	2313.5	1.0	7	3		
	2000	TYKW	5 S	2313.6	2313.8	.7	6	1.5		
28	200	GORK	44 NS	0627.0E		305.0D		5		
	100	GORK	44 NS	0709.0E		261.0D		5		
	127	TORN	44 NS	0720.0E	0950.0	440.0D	90	11		VI
	260	ONDR	44 NS	0840.0E		340.0D	131	3		
	260	ONDR	44 NS	0840.6E		340.0D	131	3		
	245	SGMR	43 NS	1218.0E	1437.6	139.6U	52			
	245	PALE	43 NS	1727.0	1957.1	615.0D	300			
	410	PALE	43 NS	1727.0	2123.1	615.0D	200			
	410	LEAR	43 NS	2159.0E	2231.5	75.3	28			
	245	LEAR	43 NS	2240.0	2345.1	731.1D	520			
	3750	TYKW	5 S	0307.0	0307.2	3.0	2.5	1		
	2000	TYKW	21 GRF	0310.0	0330	90.0	2	1		
	9400	TYKW	21 GRF	0314.0	0327	70.0	3	1.5		
	3750	TYKW	21 GRF	0315.0	0340	160.0	3	1.5		
	3750	TYKW	45 C	0351.0	0359.7	30.0	19	2		
	2000	TYKW	45 C	0353.0	0358.9	20.0	23	2		
	9400	TYKW	5 S	0358.0	0359.8	5.0	11	3		
	1000	TYKW	45 C	0358.5	0359.7	3.5	19	1.5		
	3750	TYKW	45 C	0452.0	0453.3	15.0	10	3		
	2000	TYKW	45 C	0452.0	0452.7	2.0	51	13		
	1000	TYKW	45 C	0452.0	0453.3	3.0	3	1		
	9400	TYKW	45 C	0452.0	0453.1	12.0	6	2		
	2000	TYKW	29 PBI	0454.0		8.0	4	1.5		
	245	LEAR	8 S	0731.6	0731.8	.4	30			
	410	LEAR	8 S	0731.6	0731.8	1.4	310			
	2695	LEAR	8 S	0733.5	0733.6	.1	11			
	2950	GORK	20 GRF	0915.5	0918.3	30.0	9	4.5		
	100	GORK	4 S/F	0927.5	0932.5U	9.3	80			
	536	ONDR	42 SER	0949.0	0950	4.5	21			
	536	ONDR	42 SER	0949.0	0950.0	4.5	21			
	430	KRAK	4 S/F	0949.5	0950.0	1.5	250	18		
	810	KRAK	8 S	1127.6	1127.2	.3	11			
	536	ONDR	42 SER	1127.0	1130.5	5.0	13			
	536	ONDR	42 SER	1127.0	1130.5	5.0	13			
	204	IZMI	5 S	1138.0	1138.0	.5	215	140		
	204	IZMI	45 C	1200.5	1201.5	1.5	1100	600		
	127	TORN	7 C	1201.2	1201.8	1.0	8000	4000		
	33	UPIC	8 S	1201.4	1201.7	.9				
	29	UPIC	8 S	1201.4	1201.7	1.0				
	234	POTS	42 SER	1201.4	1204.0	3.2	1400	15		III
	113	POTS	42 SER	1201.4	1201.8	3.3	1400	30		III
	127	TORN	47 GB	1246.5	1347.0	1.0	900	450		
	930	BORD	45 C	1249.3	1250.8	1.6	21	2		
	810	KRAK	3 S	1250.5	1250.8	.8	24	6		
	3000	POTS	4 S/F	1256.0	1257.7	4.0	14			
	1470	POTS	4	1256.0	1259.0	4.0	17			
	930	BORD	41 F	1431.4	1431.7	.8	14	3		
	410	SGMR	8 S	1431.5	1431.6	.8	49			
	245	SGMR	8 S	1431.8	1432.0	.5D	37			
	2800	OTTA	21 GRF	1610.0	1650	135.0	4.6	2.3		
	2800	OTTA	3 S	1710.0	1712.7	5.0	26.0	9.0		
	410	SGMR	4 S/F	1711.6	1713.0	3.2D	34			
	245	SGMR	8 S	1711.6	1713.3	2.0	58			
	1415	SGMR	8 S	1712.0	1713.1	1.6D	20			
	606	SGMR	4 S/F	1712.0	1712.6	3.3D	30			
	4995	SGMR	8 S	1712.1	1712.5	2.0D	43			
	2695	SGMR	8 S	1712.3	1712.5	1.7D	23			
	245	SGMR	47 GB	1903.1	1906.5	5.9	750			
	4995	SGMR	4 S/F	1903.8	1906.8	5.0D	170			
	2800	OTTA	4 S/F	1904.0	1906.5	5.0	65.0	23.0		
	1415	SGMR	4 S/F	1904.1	1906.8	5.0D	40			
	8800	SGMR	4 S/F	1904.5	1906.6	8.0D	360			
	410	SGMR	4 S/F	1904.5	1095.1	5.0D	45			
	2695	SGMR	4 S/F	1904.6	1906.6	4.5D	44			
	606	SGMR	4 S/F	1904.6	1905.6	4.2D	87			
	15400	SGMR	4 S/F	1905.1	1906.8	3.7D	220			
	245	PALE	8 S	1931.1	1931.3	1.0	480			
	245	PALE	47 GB	2121.8	2127.0	5.5	1100			
	2695	PENT	2 S/F	2144.0	2145	4.0	7.8	3.9		
	245	PALE	47 GB	2144.1	2148.6	4.7	620			
	245	LEAR	8 S	2222.3	2223.1	1.5	41			
	2695	PENT	8 S	2229.5	2229.9	0.6	9.6	4.8		
	2000	TYKW	5 S	2229.5	2229.7	1.0	14	3		
	3750	TYKW	5 S	2229.5	2230.0	1.5	16	6		
	9400	TYKW	5 S	2229.7	2230.0	1.0	9	3		
	1000	TYKW	45 C	2229.7	2230.0	1.0	7	3		
	245	LEAR	8 S	2234.8	2235.1	.5	110			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

DECEMBER 1980

DAY OF MONTH	FREQUENCY	STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
				UT	UT	MINUTES	PEAK	MEAN		
28	3750	TYKW	5 S	2310.5	2311	2.5	3	1		
	500	HIRA	42 SER	2338.6	2347.0	13.0	350			WR
	2000	TYKW	45 C	2339.0	2342.2	4.0	11	1.5		
	3750	TYKW	45 C	2339.0	2339.6	4.0	7	2.5		
	1000	TYKW	45 C	2339.0	2339.5	4.0	28	4		
	245	PALE	8 S	2339.0	2339.5	1.3D	350			
	410	PALE	8 S	2339.1	2339.5	0.7D	58			
	100	HIRA	42 SER	2339.1	2345.3	23.0	17000			0
	200	HIRA	42 SER	2339.1	2339.3	23.0	1000			0
	606	PALE	8 S	2339.3	2339.5	0.3D	24			
	606	PALE	8 S	2341.5	2342.1	1.1	110			
	410	PALE	8 S	2341.5	2342.1	1.1	210			
	245	PALE	8 S	2341.5	2342.1	1.1	300			
	245	PALE	47 GB	2345.1	2350.6	6.0	900			
	410	PALE	47 GB	2345.3	2350.6	5.5	240			
	1000	TYKW	42 SER	2347.6	2350.7	4.5	82	2 U		
	2000	TYKW	8 S	2347.3	2347.3	.1	6	3		
	2000	TYKW	8 S	2351.6	2351.6	.1	15	7		
	3750	TYKW	8 S	2352.4	2352.4	.1	17	8		
	245	PALE	47 GB	2353.3	2355.8	2.8	620			
	2000	TYKW	45 C	2355.5	2355.9	.7	3	1		
	3750	TYKW	5 S	2355.8	2355.9	.6	7	2.5		
	9400	TYKW	5 S	2355.8	2355.9	.8	10	3		
	245	PALE	4 S/F	2359.3	2359.5	1200.4	180			
29	127	TORN	44 NS	0720.0E	1405.5	440.0D	35000	2		V2
	260	ONDR	44 NS	0900.0E		310.0D	40			
	260	ONDR	44 NS	0900.0E		310.0D	40			
	33	UPIC	44 NS	0947.2D	1307.5	205.3D				
	29	UPIC	44 NS	0947.3D	1307.2	203.8D				
	245	SGMR	43 NS	1218.0E	1334.3	76.3U	30			
	1415	ATHN	43 NS	1306.1	1308.6	3.4D	200			
	8800	ATHN	43 NS	1306.5	1308.8	6.1	130			
	2695	ATHN	43 NS	1306.6	1308.8	3.0D	36			
	200	HIRA	44 NS	2148.0E	0010	340.0D	10	5		0
	245	LEAR	43 NS	2321.6	0700.5	587.4D	180			
	200	HIRA	46 C	0022.7	0026.3	6.3	1500	240		0
	3750	TYKW	21 GRF	0024.0	0150	140.0	7	4		
	500	HIRA	42 SER	0024.4	0029.6	30.5	80			MR
	100	HIRA	48 C	0024.6	0025.4	5.6	26000	1500		0
	2000	TYKW	21 GRF	0025.0	0150	120.0	3	1.5		
	2000	TYKW	45 C	0025.0	0025.6	2.5	7	1.5		
	9400	TYKW	45 C	0025.6	0025.6	3.0	16	4		
	3750	TYKW	45 C	0025.0	0025.8	8.0	15	3		
	1000	TYKW	42 SER	0025.0	0025.6	17.0	9	.3		
	245	PALE	47 GB	0025.0	0025.6	5.1	540			
	9400	TYKW	29 PBI	0028.0		15.0	4	2		
	2000	TYKW	45 C	0035.6	0036.1	1.5	14	2		
	9400	TYKW	8 S	0103.3	0103.4	.2	15	7		
	410	LEAR	8 S	0108.8	0109.6	1.0	34			
	245	LEAR	8 S	0109.1	0109.5	.5	300			
	245	PALE	8 S	0109.1	0109.6	.7	300			
	3750	TYKW	5 S	0132.0	0132.3	.6	10	3		
	9400	TYKW	5 S	0132.2	0132.3	1.0	9	1.5		
	245	PALE	8 S	0149.3	0149.5	.5	47			
	245	PALE	8 S	0152.8	0153.8	1.3	110			
	410	PALE	8 S	0153.3	0153.3	.2	55			
	410	SGMR	47 GB	0305.6	1308.3	606.2D	1100			
	3750	TYKW	21 GRF	0308.0	0311	110.0	4.5	1.5		
	2000	TYKW	20 GRF	0308.0	0311	70.0	3	1.5		
	9400	TYKW	21 GRF	0320.0	0330	30.0	4	2		
	500	HIRA	46 C	0324.5	0324.7	.8	50	20		MR
	9400	TYKW	5 S	0338.5	0338.7	.5	5	2		
	3750	TYKW	45 C	0358.0	0358.8	8.0	1.5	.5		
	100	HIRA	48 C	0421.4	0425.0	6.7	30000	1400		0
	200	HIRA	46 C	0422.7	0424.3	5.4	2400	180		0
	500	HIRA	46 C	0424.0	0424.6	1.1	140	40		WR
	3750	TYKW	45 C	0424.0	0424.9	4.0	72	5		
	1000	TYKW	45 C	0424.0	0426.3	3.0	150	15		
	2000	TYKW	45 C	0424.6	0424.8	3.0	32	3		
	9400	TYKW	5 S	0424.0	0424.9	1.5	70	12		
	410	LEAR	4 S/F	0424.0	0426.1	2.5	170			
	5730	IRKU	2 S	0424.0	0424.9	4.0	98			R
	245	LEAR	8 S	0424.3	0424.5	2.0	340			
	606	LEAR	8 S	0424.6	0426.1	1.9	300			
	8800	LEAR	8 S	0424.6	0424.8	.5	87			
	4995	LEAR	8 S	0424.6	0424.8	.4	39			
	2695	LEAR	8 S	0424.6	0424.8	.2	60			
	9400	TYKW	29 PBI	0425.5		10.0	2	1		
	2000	TYKW	20 GRF	0558.0	0608 U	35.0	4 D	2 D		
	9400	TYKW	20 GRF	0558.0	0607 U	35.0	5 D	2.5D		
	3750	TYKW	20 GRF	0558.0	0605.4	35.0	7	3		
	245	LEAR	8 S	0600.3	0600.6	.8	68			
	410	LEAR	8 S	0600.6	0601.0	.9	24			
	410	LEAR	8 S	0603.0	0603.3	.3	11			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

DECEMBER 1980

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK		MEAN	INT	POLARIZATION OR REMARKS
29	245	LEAR	8	S	0603.3	0603.3	.3	150				
	200	GORK	44	S/F	0637.0E		323.0E			5		
	100	GORK	4	S/F	0645.0E		315.0E			5		
	100	GORK			0654.0	0655.8		90	D			
	100	GORK	41	F	0654.0	0654.4	2.1	90	D			
	100	GORK	8	S	0720.5	0720.6	.4	2000	D			
	9100	GORK	20	GRF	0721.0	0722.4	56.4	11				
	200	GORK			0722.1	0724.8		50	D			
	200	GORK	41	F	0722.1	0722.6	33.5	80				
	245	LEAR	8	S	0722.3	0723.5	1.3	280				
	4995	LEAR	8	S	0722.3	0722.5	.3	88				
	2695	LEAR	8	S	0722.5	0722.6	.3	23				
	606	LEAR	8	S	0723.3	0723.3	.3	13				
	410	LEAR	8	S	0723.3	0723.5	.3	55				
	100	GORK			0726.6	0746 U		100	D			
	100	GORK	41	F	0726.6	0726.7	26.0	90	D			
	100	GORK			0726.6	0753.6		2000	D			
	100	GORK			0726.6	0734.0		90	D			
	100	GORK			0726.6	0735.4		90	D			
	650	GORK	1	S	0743.2	0745.7	6.1	4				
	410	LEAR	8	S	0745.5	0745.8	.3	33				
	245	LEAR	8	S	0745.6	0745.8	.4	180				
	113	POTS	4	S/F	0745.7	0746.7	1.1					
	204	IZMI	5	S	0745.8	0745.9	.5	500		200		
	950	GORK	1	S	0753.3	0753.5	.6	5				
	650	GORK		S	0753.3	0753.5	.6	1	2.5			
	3100	CRIM	26	FAL	0804.0	1000.0		12				
	9100	GORK	20	GRF	0820.0	0826.8	16.4	20				
	113	POTS	8	S	0830.5	0831.1	.2	700		250		III
	5200	BERN	22	GRF	0831.0	0856.6	90.0	20.0				ONLY PAPER REC
	3200	BERN	22	GRF	0831.0	0856.6	44.0	.0				ONLY PAPER REC
	11800	BERN	22	GRF	0848.0	0854.7	15.0	32.0				ONLY PAPER REC
	113	POTS	45	C	0850.0	0855.3	7.2	5300		100		III/V
	200	GORK	46	C	0851.0	0854.2	6.8	50	D			
	100	GORK			0851.0	0852.6		110	D			
	100	GORK	41	F	0851.0	0851.5	6.8	110	D			
	100	GORK			0851.0	0854.9		1950				
	100	GORK			0851.0	0856.7		2500	D			
	127	TORN	47	GB	0851.0	0857.3	7.0	4100		300		
	200	GORK			0851.1	0856.7		200	D			
	950	GORK	4	S/F	0851.2	0856.5	6.3	29				
	8800	ATHN	8	S	0851.3	0851.8	.7	21				
	2695	ATHN	8	S	0851.5	0851.8	1.6D	16				
	1415	ATHN	8	S	0851.6	0851.8	.5D	66				
	9500	POTS	4	S/F	0852.0	0856.9	9.0	19				
	810	KRAK	42	SER	0852.0	0856.5	5.5	100				
	650	GORK			0852.3	0856.0		34				
	650	GORK	46	C	0852.3	0854.9	5.1	26				
	650	GORK			0852.3	0856.7U		64				
	234	POTS	41	F	0852.4	0855.0	5.3	800		10		III/V
	245	LEAR	47	GB	0852.5	0854.8	5.0	750				
	204	IZMI	41	F	0852.5	0857.0	5.4	1300				
	930	BORD	41	F	0852.5	0856.7	5.0	80		3		
	430	KRAK	42	SER	0853.0	0856.5	4.0	300				
	15000	KISV	4	S/F	0854.0	0855	3.0	26				
	410	LEAR	4	S/F	0854.6	0856.8	2.7	290				
	606	LEAR	4	S/F	0854.8	0856.8	2.3	150				
	3000	POTS	8	S	0856.5	0856.8	.5	9.4				
	1470	POTS	3	S	0856.5	0857.1	1.3	57				
	2950	GORK	1	S	0856.5	0856.7	2.5	11		5		
	8800	LEAR	8	S	0856.6	0856.6	.5	18				
	204	IZMI	5	S	0912.5	0912.5	.5	700		500		
	127	TORN	47	GB	1027.0	1032.4	6.0	7400				
	200	GORK	4	S/F	1030.0	1033.6	5.7	670				
	100	GORK	46	C	1030.5	1030.8	5.0	130	D			
	100	GORK			1030.5	1033.8		36800				
	113	POTS	45	C	1030.9	1034.1	5.7	3200		250		III/V
	260	ONDR	46	C	1031.0	1033.3	5.0	168		34		
	260	ONDR	46	C	1031.0	1033.3	5.0	168		34		
	204	IZMI	41	F	1031.0	1033.5	5.0	1970				
	245	LEAR	47	GB	1031.3	1033.6	4.5	1600				
	234	POTS	45	C	1031.4	1033.8	4.7	2200		30		III/V
	536	ONDR	45	C	1031.7	1033.7	5.0	62		8.5		
	536	ONDR	45	C	1031.7	1033.7	5.0	62		8.5		
	650	GORK	46	C	1031.8	1033.6	5.5	60				
	650	GORK			1031.8	1035.7		60				
	15000	KISV	8	S	1032.0	1033.8	3.0	67				
	2650	DWIN	45	C	1032.0	1034	6.0	390	D			
	9500	POTS	4	S/F	1032.0	1033.8	8.0	120				
	430	KRAK			1032.0	1035.7		130				
	430	KRAK	46	C	1032.0	1034.0	4.0	300		30		
	2695	LEAR	8	S	1032.3	1033.6	1.7	470				
	808	ONDR	45	C	1032.5	1034.0	4.0	88		10		
	808	ONDR	45	C	1032.5	1034	4.0	88		10		
	9100	GORK	3	S	1032.6	1033.8	6.3	170				

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

DECEMBER 1980

DAY OF MONTH	FREQUENCY	STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
				UT	UT	MINUTES	PEAK	MEAN		
29	950	GORK	4 S/F	1033.0	1033.7	3.1	80			
	3200	BERN	4 S/F	1033.0	1034.0	7.0	.0			ONLY PAPER REC
	1470	POTS	3 S	1033.0	1034.6	1.0	156			
	10715	DWIN	4 S/F	1033.0	1034	3.0	150	50		
	930	BORD	46 C	1033.0	1033.8	3.3	114	7		
	19600	BERN	4 S/F	1033.1	1034.0	4.0	64.0			
	8800	LEAR	8 S	1033.1	1033.6	1.0	200			
	5200	BERN	4 S/F	1033.1	1034.0	7.0	130.0			
	8400	BERN	4 S/F	1033.1	1034.0	7.0	216.0			
	11800	BERN	4 S/F	1033.1	1034.0	5.0	196.0			
	2950	GORK	3 S	1033.1	1033.5	2.0	86 D			
	410	LEAR	47 GB	1033.3	1033.6	2.5	270			
	1415	ATHN	8 S	1033.3	1033.6	.7D	180			
	15400	LEAR	8 S	1033.3	1033.6	.7	86			
	4995	LEAR	8 S	1033.3	1033.6	.5	130			
	2695	ATHN	8 S	1033.3	1033.6	.5D	500			
	33	UPIC	4 S/F	1033.4	1034	2.2				
	3000	POTS	8 S	1033.5	1033.6	1.0	1035			
	8800	ATHN	8 S	1033.5	1033.8	1.3	60			
	3100	CRIM	3 S	1033.5	1033.7	1.0	460	120		
	810	KRAK	42 SER	1033.5	1034.0	3.0	160			
	810	KRAK		1033.5	1036.0		270			
	29	UPIC	4 S/F	1033.6	1034.1	1.8				
	606	LEAR	47 GB	1033.6	1033.6	2.5	110			
	1470	POTS	4 S/F	1035.0	1036.0	1.5	30			
	3000	POTS	4 S/F	1035.0	1035.9	1.5	45			
	9400	HUAN	S	1114.0	1130.1	31.6	19.9	8.3		L
	650	GORK		1123.2	1128.2		40			
	650	GORK	46 C	1123.2	1125.0	7.6	50			
	650	GORK		1123.2	1125.8		60			
	3000	POTS	40 F	1124.0	1130.0	14.0	21			
	9500	POTS	40 F	1124.0	1130.0	24.0	24			
	3200	BERN	45 C	1124.0	1130.0	37.0	.0			ONLY PAPER REC
	1470	POTS	40 F	1124.0	1130.0	21.0	18			
	5200	BERN	45 C	1124.1	1130.1	37.0	31.0			
	11800	BERN	45 C	1124.1	1127.3	20.0	16.0			
	8400	BERN	45 C	1124.1	1127.8	30.0	21.0			
	536	ONDR	46 C	1124.3	1127.3	4.5	63	3.7		
	536	ONDR	46 C	1124.3	1127.3	4.5	63	3.7		
	3100	CRIM		1124.5	1130.5		21			
	3100	CRIM		1124.5	1128.0		12			
	3100	CRIM	45 C	1124.5	1125.5	8.0	9	7		
	950	GORK	46 C	1124.7	1125.7	8.2	3.5			
	950	GORK	48 C	1124.7	1128.3		21			
	430	KRAK	42 SER	1125.0	1125.5	2.5	400			
	930	BORD	46 C	1125.0	1128.4	7.0	36	3		
	430	KRAK		1125.0	1127.3		400			
	33	UPIC	45 C	1125.3	1125.8	1.2				
	29	UPIC	45 C	1125.7	1126.2U	1.4				
	100	GORK		1126.7	1127.8		130			
	100	GORK	41 F	1126.7	1126.9	1.3	130			
	200	GORK	4 S/F	1126.8	1127.0	4.5	50			
	113	POTS	4 S/F	1127.0	1127.2	.5	800	200		
	810	KRAK	8 S	1128.0	1128.5	.5	42			
	234	POTS	4 S/F	1211.7	1212.6	1.1	250	5		III
	113	POTS	4 S/F	1211.8	1212.5	1.2	315	30		III
	33	UPIC	4 S/F	1212.1	1212.2	1.0				
	29	UPIC	4 S/F	1212.2	1212.4	1.0				
	260	ONDR	8 S	1212.5	1212.5	.5	128			
	260	ONDR	8 S	1212.5	1212.5	.5	128			
	9400	HUAN	S	1304.1	1320.0	89.7	21.6	9.0		L
	536	ONDR	46 C	1305.0	1307.7	7.0	136	10		
	260	ONDR	46 C	1305.0	1308.4	6.0	160	25		
	536	ONDR	46 C	1305.0	1307.7	7.0	136	10		
	260	ONDR	46 C	1305.0	1308.4	6.0	160	25		
	808	ONDR	45 C	1305.2	1307.0	4.5	112	18		
	808	ONDR	45 C	1305.2	1307	4.5	112	18		
	3200	BERN	45 C	1305.3	1308.7	54.0	.0			ONLY PAPER REC
	606	SGMR	47 GB	1305.3	1308.0	21.5D	890			
	5200	BERN	45 C	1305.3	1307.3	54.0	58.0			ONLY PAPER REC
	930	BORD	46 C	1305.4	1306.6	8.6	196	10		
	810	KRAK	46 C	1305.5	1308.5	4.5	370	20		
	245	SGMR	47 GB	1305.8	1306.1	21.5	610			
	1415	SGMR	4 S/F	1305.8	1306.5	22.2D	150			
	33	UPIC	46 C	1305.9	1307.5	6.6				
	1470	POTS	4 S/F	1306.6U	1309.7	4.0U	155			
	19600	BERN	45 C	1306.0	1308.8	15.0	132.0			
	8400	BERN	45 C	1306.0	1309.0	37.0	137.0			
	35000	BERN	45 C	1306.0	1308.8	11.0	60.0			
	10715	DWIN	45 C	1306.0	1309	4.0	130	50		
	2650	DWIN	45 C	1306.0	1307	4.0	60	20		
	430	KRAK	46 C	1306.0	1308.5	6.0	500	30		
	4995	SGMR	4 S/F	1306.1	1307.3	14.5D	50			
	8800	SGMR	4 S/F	1306.1	1307.0	22.2D	94			
	11800	BERN	45 C	1306.1	1309.0	42.0	153.0			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

DECEMBER 1980

DAY OF MONTH	FREQUENCY	STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
				UT	UT	MINUTES	PEAK	MEAN		
29	2695	SGMR	4 S/F	1306.3	1308.8	21.3D	40			
	9400	HUAN	C	1306.3	1309.0	3.4	117.8	50.6		L
	3000	POTS	4 S/F	1306.5	1309.0	3.5	29			
	9500	POTS	4 S/F	1306.5	1309.0	3.5	106			
	15400	SGMR	4 S/F	1306.6	1308.8	13.7D	98			
	29	UPIC	46 C	1307.1	1307.2	4.0				
	113	POTS	45 C	1307.3	1309.1	3.3	7700	250		III
	234	POTS	45 C	1307.7	1309.2	3.2	1400	40		III
	810	KRAK	42 SER	1312.0	1314.2	2.3	100			
	3000	POTS	1 S	1313.0	1313.8	1.5	14			
	1470	POTS	3 S	1313.5	1313.8	1.0	8.3			
	3000	POTS	3 S	1319.2	1320.0	1.8	18			
	9500	POTS	1 S	1319.5	1320.0	1.0	8.1			
	1470	POTS	3 S	1319.5	1320.0	1.0	8.3			
	3000	POTS	3 S	1325.6	1327.2	2.4	11			
	1470	POTS	4 S/F	1325.8	1326.4	2.7	21			
	930	BORD	46 C	1326.0	1327.2	2.0	83	3		
	810	KRAK	42 SER	1326.5	1327.0	1.5	50			
	930	BORD	41 F	1342.5	1342.6	.5	15	2		
	113	POTS	4 S/F	1342.6	1342.7	.8	2500	600		III
	234	POTS	4 S/F	1342.6	1342.8	.3	150	25		III
	810	KRAK	8 S	1343.0	1343.2	.3	10			
	430	KRAK	8 S	1343.3	1343.3	.1	70			
	2800	OTTA	20 GRF	1345.0	1350	15.0D	9.4			
	536	ONDR	45 C	1404.6	1405.0	3.0	70	4.2		
	536	ONDR	45 C	1404.0	1405	3.0	70	4.2		
	930	BORD	41 F	1405.1	1406.8	2.0	42	2		
	113	POTS	42 SER	1411.0	1431.0	22.0	8500	30		III
	2800	OTTA	21 GRF	1423.0	1457	95.0	3.8	1.9		
	245	SGMR	47 GB	1426.0	1429.8	8.6	590			
	410	SGMR	47 GB	1426.0	1430.1	7.1D	760			
	930	BORD	42 SER	1426.0	1430	6.4	105	2		
	606	SGMR	4 S/F	1426.3	1428.8	6.0D	67			
	2800	OTTA	40 F	1430.0	1430.2	1.3	16.4			
	2800	OTTA	40 F	1445.5	1449.7	11.0	19.6			
	9400	HUAN	S	1445.6	1450.8	15.6	8.3	6.2		0
	5200	BERN	3 S	1447.5	1449.6	4.0	43.0			ONLY PAPER REC
	3200	BERN	3 S	1447.5	1449.6	4.0	.0			ONLY PAPER REC
	11800	BERN	3 S	1448.1	1449.7	4.0	13.0			
	8400	BERN	3 S	1448.1	1449.7	4.0	25.0			
	930	BORD	41 F	1448.6	1449	2.0	68	2		
	930	BORD	41 F	1506.2	1506.3	.4	57	2		
	930	BORD	41 F	1522.0	1522.3	3.0	36	2		
	930	BORD	41 F	1538.4	1538.9	.6	21	2		
	9400	HUAN	S	1611.8	1619.0	36.0	6.6	3.2		0
	2800	OTTA	1 S	1618.0	1618.1	1.0	4.8	2.4		
	245	PALE	8 S	1815.1	1815.5	.9	55			
	2800	OTTA	2 S/F	1835.0	1840.5	9.0	3.8	2.2		
	245	PALE	8 S	1923.5	1923.6	.2	37			
	2695	PENT	20 GRF	1950.0	2030	78.0	3.2	1.6		
	245	PALE	8 S	1952.0	1952.5	.6	130			
	245	PALE	47 GB	2005.8	2006.0	.8	690			
	606	SGMR	8 S	2005.8	2006.3U	.5D	67.U			
	410	SGMR	8 S	2006.0	2006.1	1.3D	480			
	245	SGMR	47 GB	2006.1	2006.3	2.2	800			
	245	SGMR	8 S	2017.3	2018.6	2.0	68			
	410	SGMR	8 S	2017.3	2018.3	1.7D	25			
	245	SGMR	47 GB	2028.8	2029.3	0.5D	1199			
	245	SGMR	47 GB	2028.8	2029.6	5.5	1199			
	245	PALE	47 GB	2029.3	2029.3	.2	1399			
	245	PALE	47 GB	2031.1	2033.3	2.7	190			
	606	SGMR	4 S/F	2031.8	2032.6	2.3D	38			
	410	PALE	8 S	2031.8	2032.6	2.0	60			
	410	SGMR	4 S/F	2032.0	2032.6	2.1D	49			
	606	PALE	8 S	2032.0	2032.6	1.3	25			
	245	PALE	8 S	2117.8	2117.8	.3	160			
	245	LEAR	8 S	2222.3	2223.1	1.5	41			
	606	LEAR	8 S	2232.8	2233.6	1.0	79			
	410	LEAR	8 S	2233.3	2233.6	.5	110			
	245	LEAR	8 S	2234.8	2235.1	.5	110			
30	410	LEAR	43 NS	0455.1	0527.5	54.4	23			
	606	LEAR	43 NS	0518.5	0520.0	29.0	21			
	200	GORK	44 NS	0643.0E		293.0D		5		
	127	TORN	44 NS	0720.0E	1422.7	440.0D	530	2		V1
	260	ONDR	44 NS	0840.0E		310.0D	29			
	260	ONDR	44 NS	0840.0E		310.0D	29			
	245	PALE	43 NS	1957.5	2034.8	347.5D	119			
	410	PALE	43 NS	2048.5	2051.0	296.5D	30			
	200	HIRA	44 NS	2148.0E	2335	580.0D	20	5		MR
	245	LEAR	43 NS	2200.0	2212.3	773.0D	119			
	3750	TYKW	45 C	0005.0	0010.7	15.0	4.5	1		
	245	LEAR	47 GB	0026.3	0026.5	.7	650			
	3750	TYKW	45 C	0103.5	0114.6	30.0	5	1.5		
	9400	TYKW	5 S	0327.0	0327.3	.7	8	2		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

DECEMBER 1980

DAY OF MONTH	FREQUENCY	STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
				UT	UT	MINUTES	PEAK	MEAN		
30	3750	TYKW	5 S	0502.6	0502.8	4.0	2	1		
	3100	CRIM	26 FAL	0720.0	0848.0		7			
	5200	BERN	4 S/F	0818.2	0819.5	15.0	36.0			ONLY PAPER REC
	3200	BERN	4 S/F	0818.2	0819.5	15.0	.0			ONLY PAPER REC
	3100	CRIM	1 S	0818.7	0819.5	1.0	9	3		
	2950	GORK	1 S	0819.0	0819.8	5.4	11	5		
	9100	GORK	1 S	0819.2	0819.9	2.3	20	10		
	8800	LEAR	8 S	0819.3	0819.6	.5	24			
	4995	LEAR	8 S	0819.5	0819.6	.1	28			
	204	IZMI	8 S	0836.5	0836.5	.5	525	300		
	113	POTS	41 F	0836.6	0836.8	1.8	1800	85		III
	536	ONDR	8 S	1128.5	1128.5	.2	60			
	536	ONDR	8 S	1128.5	1128.5	.2	60			
	930	BORD	41 F	1221.8	1221.9	.8	121	2		
	810	KRAK	8 S	1222.3	1222.7	.7	80			
	810	KRAK	8 S	1229.0	1229.0	.1	15			
	5200	BERN	22 GRF	1301.0	1309.3	50.0	26.0			ONLY PAPER REC
	3000	POTS	23 GRF	1301.0	1309.5	19.0	16			
	1470	POTS	20 GRF	1301.0	1304.7	17.0	4.7			
	3200	BERN	22 GRF	1301.0	1309.3	50.0	.0			ONLY PAPER REC
	9400	HUAN	S	1301.3E	1313.7U	31.1U	13.1	7.4		L
	9500	POTS	20 GRF	1302.0	1313.0	23.0	11			
	245	SGMR	8 S	1307.6	1308.0	.5	16			
	113	POTS	41 F	1322.4	1322.6	2.6	650	20		III/V
	245	SGMR	4 S/F	1439.6	1440.0	7.4	240			
	410	SGMR	8 S	1439.8	1440.1	.5D	22			
	2800	OTTA	2 S/F	1506.0	1506.5	4.0	2.8	1.4		
	245	PALE	8 S	1917.8	1917.8	.3	139			
31	200	GORK	44 NS	0625.0E		215.0D		10		
	127	TORN	44 NS	0720.0E	1135.5	440.0D	90	1.2		V1
	260	ONDR	44 NS	0835.0E		305.0D	10			
	260	ONDR	44 NS	0835.0E		305.0D	10			
	200	HIRA	44 NS	2149.0E	2333	260.0D	5	2		WR
	245	LEAR	43 NS	2201.0	0623.3	630.3D	110			
	3750	TYKW	5 S	0232.0	0233.6	8.0	4	1.5		
	2000	TYKW	5 S	0344.9	0345.2	.5	11	2		
	1000	TYKW	5 S	0344.9	0345.2	.5	3	1		
	3750	TYKW	45 C	0345.0	0345.2	1.0	3	.5		
	810	KRAK	8 S	0859.5	0859.8	.3	16			
	1470	POTS	40 F	0927.4	0927.6	2.6	6.1			
	810	KRAK	8 S	0928.3	0928.5	.3	28			
	930	BORD	41 F	0928.5	0928.7	.4	37	2		
	810	KRAK	8 S	1018.0	1018.2	.3	7			
	810	KRAK	8 S	1027.0	1027.3	.5	15			
	113	POTS	8 S	1258.6	1258.7	.3	100	30		
	2800	OTTA	20 GRF	1450.0	1525	90.0	3.2	1.6		
	9400	HUAN	S	1506.2	1515.2	40.9	5.0	2.8		0
	2800	OTTA	20 GRF	1700.0	1728	65.0	2.8	1.6		
	9400	HUAN	S	1937.4	1945.0	60.4	4.1	2.6		0

Reports are received routinely from the following observatories:

ABST = Abastumania
ATHN = Athens
BERN = Berne
BORD = Bordeaux
CRIM = Crimea
DWIN = Dwingeloo
GORK = Gorky
HARS = Harestua
HIRA = Hiraiso
HUAN = Huancayo
IRKU = Irkutsk
IZMI = Izmiran
KISV = Kislovodsk
KRAK = Krakow
LEAR = Learmonth
MANI = Manila
NAGO = Nagoya
NOBE = Nobeyama
ONDR = Ondrejov
OTTA = Ottawa
PALE = Palehua
PENT = Penticton
POTS = Potsdam
SAOP = Sao Paulo
SGMR = Sagamore Hill
SYDN = Sydney
TORN = Torun
TYKW = Toyokawa
TRST = Trieste
UPIC = Upice
VORD = Voroshilov

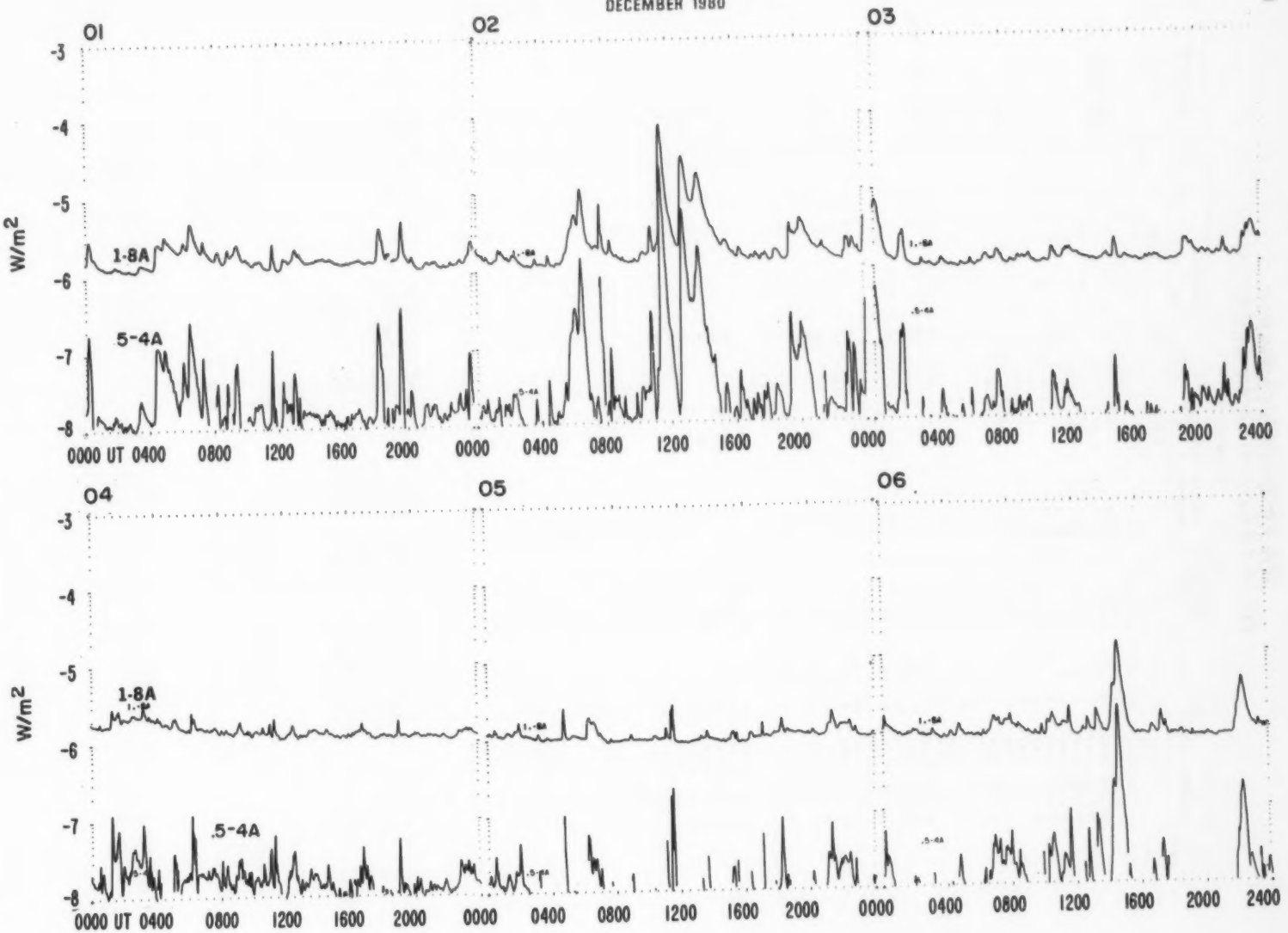
Explanation of Type Code:

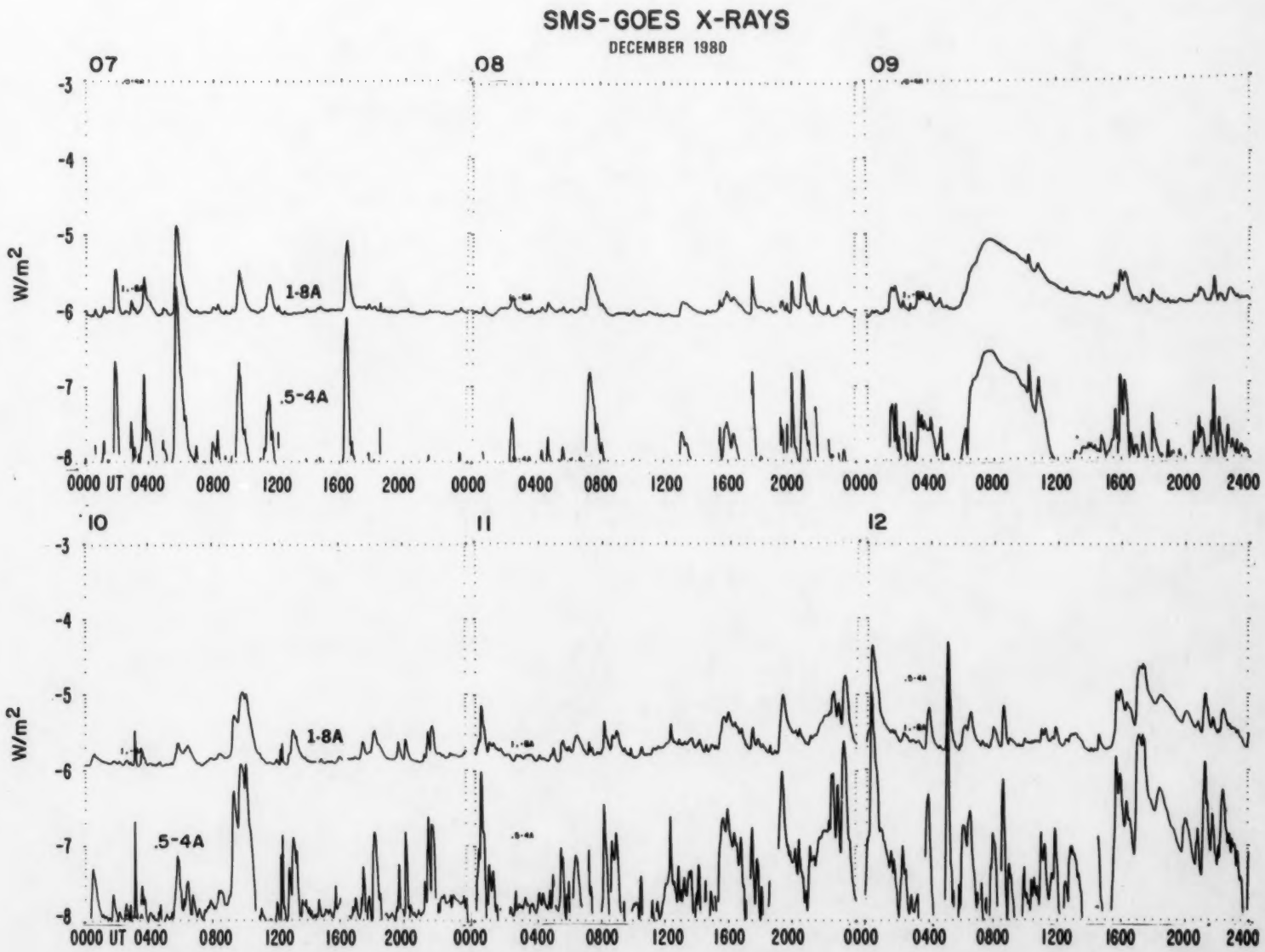
1 Simple 1
2 Simple 1F
3 Simple 2
4 Simple 2F
5 Simple
6 Minor
7 Minor +
8 Spike
20 Simple 3
21 Simple 3A
22 Simple 3F
23 Simple 3AF
24 Rise
25 Rise A
26 Fall
27 Rise and Fall
28 Precursor
29 Post Burst Increase
30 Post Burst Increase A
31 Post Burst Decrease
32 Absorption
40 Fluctuation
41 Group of Bursts
42 Series of Bursts
43 Onset of Noise Storm
44 Noise Storm in Progress
45 Complex
46 Complex F
47 Great Burst
48 Major
49 Major +

1A Simple 1A
2A Simple 1AF
3A Simple 2A
4A Simple 2AF
21A Simple 3A GRF
240 Rise only
240F Rise only F
24P Post Rise
24PF Post Rise F
26A Fall A
260 Fall Only
26F Fall F
27F Rise and Fall F
27AF Rise and Fall AF
31A P.B. Decrease A
32A Absorption A
46F Complex F

SMS-GOES X-RAYS

DECEMBER 1980

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DECEMBER 1980
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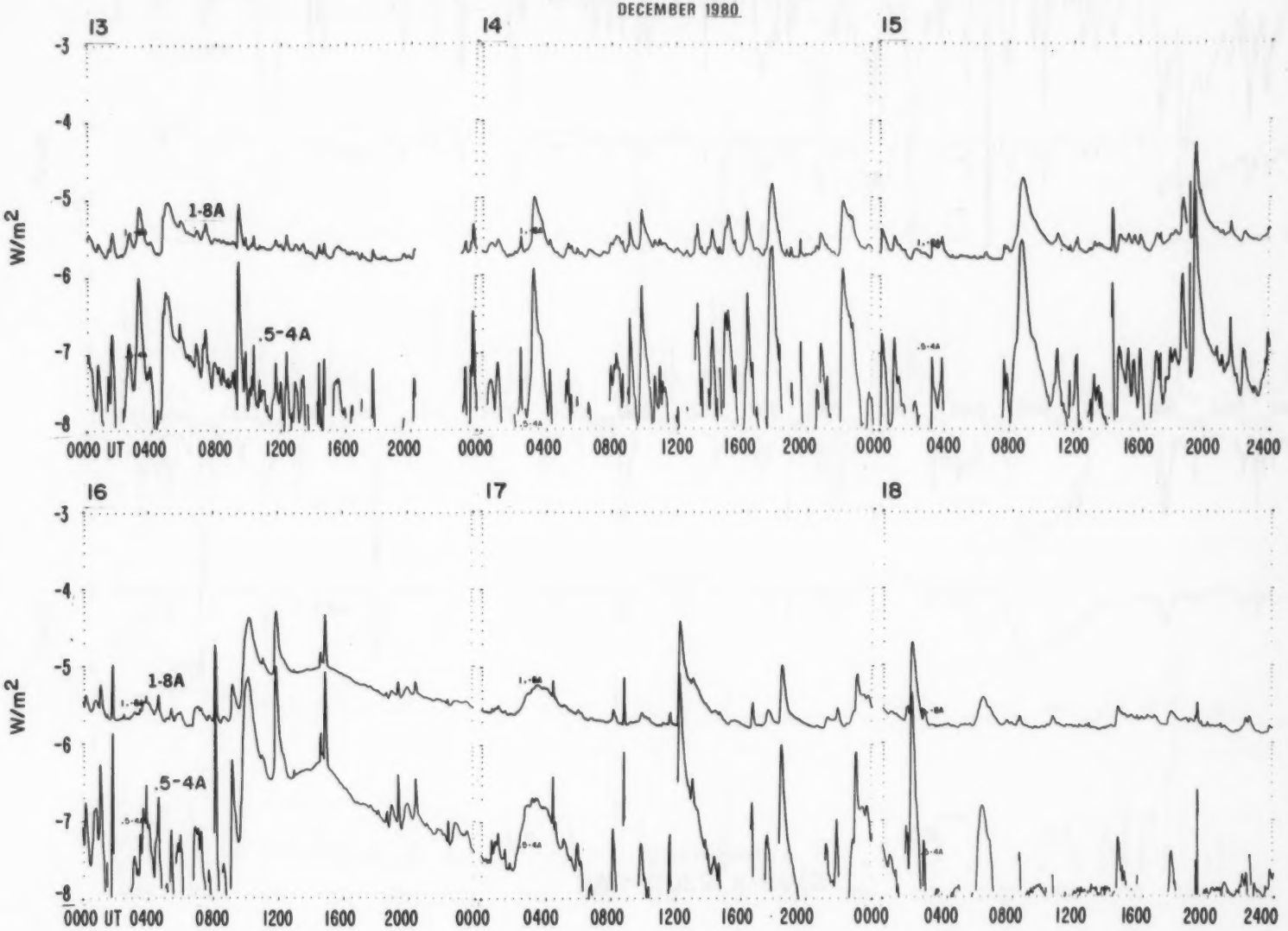
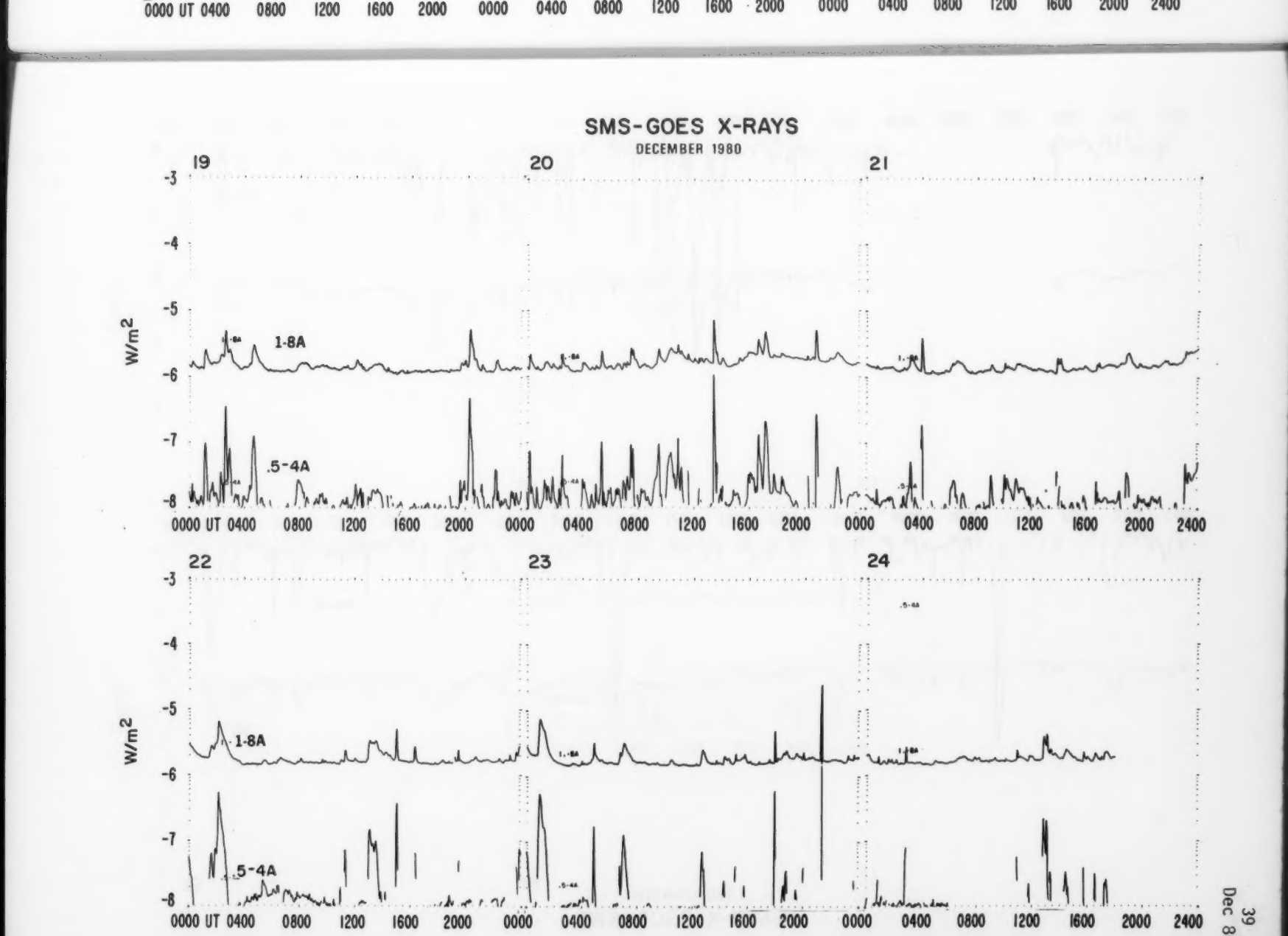
SMS-GOES X-RAYS

DECEMBER 1980




SMS-GOES X-RAYS
DECEMBER 1980
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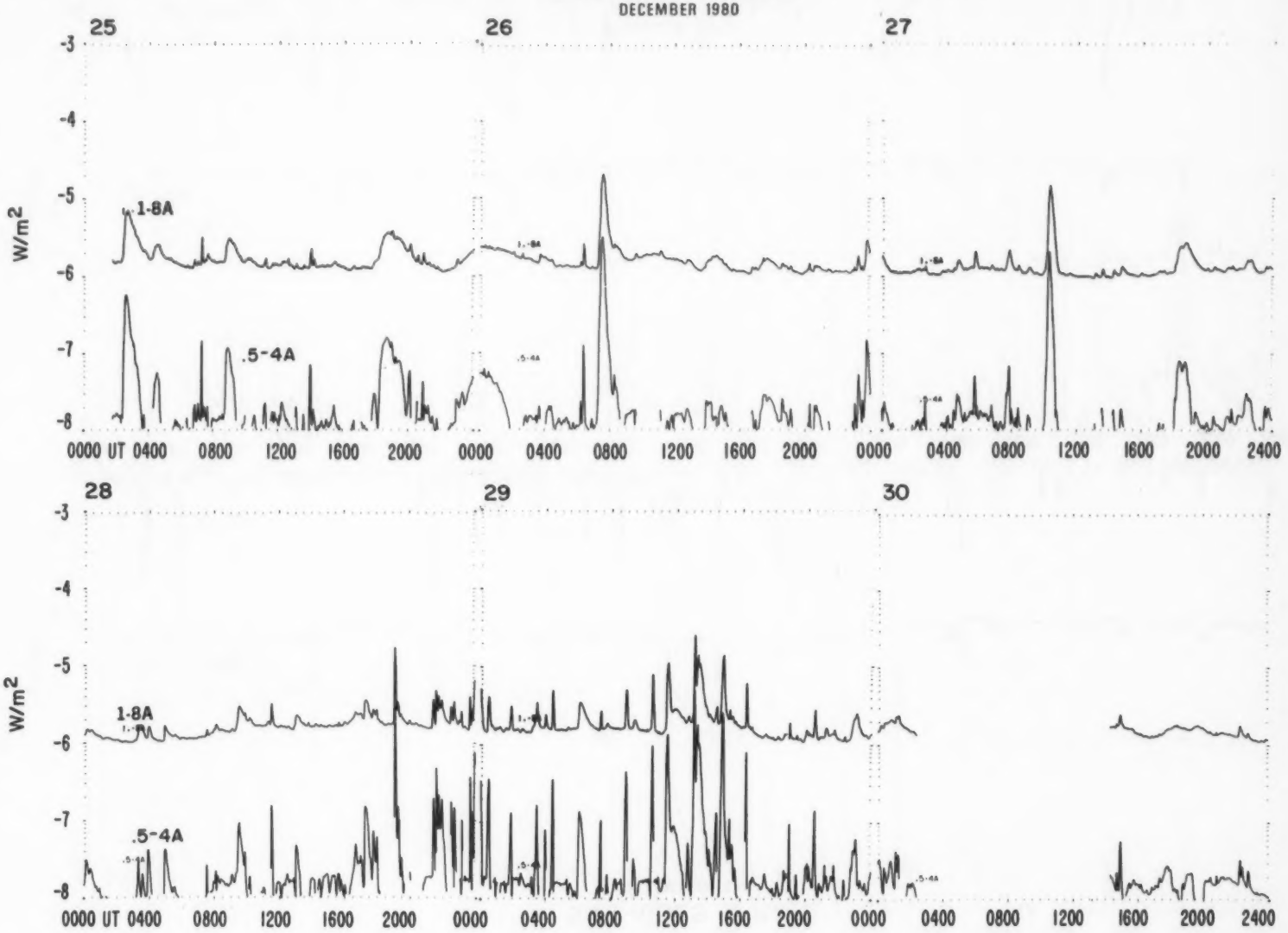
SMS-GOES X-RAYS

DECEMBER 1980



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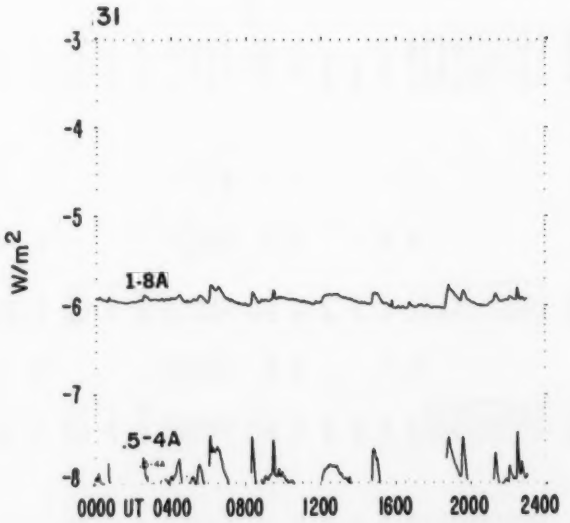
SMS-GOES X-RAYS

DECEMBER 1980



MASS EJECTIONS FROM THE SUN

DECEMBER 1980

Station	Date 1980	Observed UT Start	Max	End	Location RA°	$R/R_\odot$	Wavelength	Type Event
HALE	Dec 01	1737E		2350D	004	1.13	H-alpha	Q
HALE	Dec 02	1810E		2023D	079	1.19	H-alpha	Q
HALE	Dec 02	1946E		2023D	231	1.11	H-alpha	Q
CULG	Dec 08	2042		2056			Meter	II
WEND	Dec 10	1222	1235	1313D	287	1.10	H-alpha	S
BIGB	Dec 10	2144	2147	2157	088	1.0	H-alpha	A
BIGB	Dec 10	2200	2210	2231	251	1.0	H-alpha	A
BIGB	Dec 11	1858	1910	1928	077	1.0	H-alpha	A
BIGB	Dec 11	2111	2119	2135	254	1.0	H-alpha	A
HALE	Dec 12	1818E		2259D	092	1.17	H-alpha	A
DWIN	Dec 15	1313.6		1313.8			Decimeter	IV
DWIN	Dec 16	0804.0		0815.0			Decimeter	IV Zebra patterns
DWIN	Dec 16	1149.6		1151.0			Decimeter	IV
BIGB	Dec 16	1547	1615	1703	102	1.0	H-alpha	A
BIGB	Dec 16	1721	1839	2040	105	1.0	H-alpha	A
BIGB	Dec 16	1920	1924	1931	260	1.0	H-alpha	A
BIGB	Dec 16	1923	1939	2007	096	1.0	H-alpha	A
DWIN	Dec 17	0845		0850			Decimeter	IV
DWIN	Dec 17	0932.1		0933.3			Decimeter	IV
DWIN	Dec 18	1100.8		1101.1			Decimeter	IV
DWIN	Dec 18	1305.0		1308.2			Decimeter	IV
DWIN	Dec 18	1326.5		1328.5			Decimeter	IV
DWIN	Dec 18	1333.0		1334.6			Decimeter	IV
DWIN	Dec 18	1345.8		1347.2			Decimeter	IV
DWIN	Dec 18	1401.3		1405.3			Decimeter	IV
DWIN	Dec 18	1430.0		1433.5			Decimeter	IV
DWIN	Dec 18	1442.1		1445.8			Decimeter	IV Fiber bursts
DWIN	Dec 18	1504.0		1505.0			Decimeter	IV
BIGB	Dec 18	2051	2103	2127	096	1.0	H-alpha	A
BIGB	Dec 19	1730	1743	1809	290	1.0	H-alpha	A
CULG	Dec 20	2052		2104			Meter	II
CULG	Dec 21	0408		0417			Meter	II
BIGB	Dec 22	1735	1741	1817	105	1.0	H-alpha	A
BIGB	Dec 23	2115	2122	2144	100	1.0	H-alpha	A
CULG	Dec 23	2116.5		2117			Decimeter; meter	Possible II, Weak
WEND	Dec 24	1305	1313	1337	102	0.98-1.10	H-alpha	S
BIGB	Dec 24	1559	1605	1645	067	1.0	H-alpha	A
BIGB	Dec 24	1935	1941	1949	085	1.0	H-alpha	A
BIGB	Dec 24	2025	2115	2209	104-109	1.0	H-alpha	SP
BIGB	Dec 24	2229	2245	2305	106	1.0	H-alpha	SP
BLEN	Dec 25	0955.5		1440D			Decimeter	IV Pulsations
LEAR	Dec 26	1012.6		1049.0			Meter	II
DWIN	Dec 27	0826.5		0829.0			Decimeter	IV
DWIN	Dec 27	1007.3		1023.5			Decimeter	IV
BIGB	Dec 28	1757	1800	1809	195	0.46	H-alpha	A
WEIS	Dec 29	1317.5		1328.5			Meter	II
BIGB	Dec 29	2125	2144	2220	225	0.54	H-alpha	A
HALE	Dec 30	2006E	2021	2251	262	1.38	H-alpha	Q
BIGB	Dec 31	1834	1839	1853	104	1.0	H-alpha	A

QUALIFIERS ON START, MAX AND END TIMES
D = event ended after the tabulated time
E = event began before the tabulated time
U = uncertain time

TYPE OF EVENT
A = eruptive active region prominence
CB = coronal cloud bubble
D = coronal depletions
E = coronal enhancement
EL = coronal expanding loop
II = Type II radio burst
IVm = moving Type IV radio burst
Q = eruptive quiescent prominence
R = coronal ray or streamer
S = flare-surge if there is a known flare association
SP = flare-spray if there is a known flare association

* = movement may be caused by ionospheric refraction

REPORTING STATIONS
BIGB = Big Bear
BLEN = Bleien
CULG = Culgoora
DWIN = Dwingeloo
GEOR = Georgiana
HALE = Haleakala
HAOC = High Altitude Observatory's SMM Coronagraph/Polarimeter
HAOK = High Altitude Observatory's MARK-III Coronameter at Mauna Loa
HARV = Harvard (Fort Davis)
LEAR = Learmonth
MANI = Manila
MITK = Mitaka
NRLC = Naval Research Laboratory's White-Light Coronagraph Experiment on P78-1
PALE = Palehua
SGMR = Sagamore Hill
TELV = Tel Aviv
WEIS = Weissenau
WEND = Wendelstein
UDAI = Udaipur

NOTE: Because only a small fraction of the data taken by satellite-borne coronagraph had been analyzed at the time this table was assembled, many events are defined solely by ground-based observatory reports.

SGD 442 Part II (Comprehensive)

NOVEMBER 1979 DATA

Contents

	Page
Solar Flares November 1979	
H-alpha Flares (Standardized Data)	44-81
Daily Flare Indices	81
Intervals of No Flare Patrol Observation	82

Hα SOLAR FLARES

NOVEMBER 1979

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS	
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX LONG. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.		
GRP79266	01	0023>9	0024 0037+3	0105	S15	E41	.707	16401	4.1	42	1N						D	
PURP	01	0023	0024	0053	S12	E36	.634	16401	3.7	30	-N		C					
CULG	01	0032	0037	0118	S15	E41	.707	16401	4.1	46	1N		C	0037	380	4.2		
MITK	01	0035	0040	0104	S16	E41	.712	16401	4.1	29	-N		C	0040			D	
MANI	01	0038E	0039	0055D	S15	E46	.761	16401	4.5	170	-N	3	C		120			
PURP	01	0039	0040	0105	S14	E41	.703	16401	4.1	26	2N		C		491	6.9		
267 CULG	01	0106	0112	0122	S17	W70	.953	16384	26.8	16	?F		C	0112	180			ZX
	IMP.1 NO : PURP																	
268 PURP	01	0149	0155	0159	N14	E18	.345	16398	2.4	10	?F		P					ZX
	IMP.1 NO : MITK																	
269 PURP	01	0300	0303	0422	N11	E44	.695	16402	4.4	82	-F		P					ZX
270 CULG	01	0451	0456	0515	N12	E69	.999	16408	7.9	24	?N		C	0456	100			ZX
	IMP.1 NO : PURP MITK																	
GRP79271	01	0705	0714+6	0724	S10	E34	.599	16401	3.8	16	-F				25	.3		
YUNN	01	0708	0714	0722	S10	E34	.599	16401	3.8	14	-F		C		31	.4		
MANI	01	0719E	0720	0725D	S10	E35	.612	16401	3.9	60	-N	3	V		15	.2		
GRP79272	01	0745+3	0752+3 0806+1	0815	N11	E11	.220	16398	2.1	30	1F						J	
CATA	01	0745	0755	0810D	N11	E11	.220	16398	2.1	25D	-F	2	P	0755	140	1.5		
ABST	01	0748	0752	0753D	N13	E14	.280	16398	2.4	5D	1F		P	0752	384	4.1	FJ	
ABST	01	0805E	0806	0811	N17	E08	.256	16398	1.9	6D	-N	*	P	0806	114	1.5	E	
PURP	01	0805	0807	0818	N10	E15	.274	16398	2.5	13	1F	*	P					
273 CATA	01	0800	0800	0805	N15	W08	.228	16392	31.7	5	-N	2	C	0800	84	1.0		ZX
274 CATA	01	0805	0805	0810D	N09	W85	.995	16396	26.8	5D	?F	2	P	0805	112			ZX
	IMP.1 NO : PURP YUNN ABST																	
GRP79275	01	0805+0	0813+1 0820	0836	N13	W72	.948	16386	26.9	31	1B						FJ	
ABST	01	0805	0814	0907D	N11	W67	.919	16396	27.3	62D	2B		P	0814	262		FJ	
CATA	01	0805	0819	0818D	N10	W70	.937	16386	27.1	5D	1B	2	P	0810	140			
MANI	01	0812E	0813	0830D	N16	W75	.963	16386	26.7	18D	-N	2	V		88	1.9	F	
ATHN	01	0812E	0813	0842D	N16	W75	.963	16396	26.7	30D	-B	1		0813	49	1.8		
PURP	01	0818	0820	0823	N12	W71	.943	16386	27.0	5	1N		C					
276 ABST	01	0846	0848	0910	S14	E51	.807	16401	5.2	14	?F		C	0848	175	3.1	DJ	ZX
	IMP.1 NO : YUNN																	
277 ATHN	01	0852E	0853	0907D	S11	E33	.592	16401	3.8	15D	-B	1		0853	23	.2		ZX
278 KHAR	01	0929E		0950D	N19	E13	.331	16398	2.4	30D	-F		P	0930	100	1.1	ET	ZX
GRP79279	01	1000E	1007+0	1040D	N15	E84	.993	16408	7.7	40	1N						EH	
KHAR	01	1000E	1007	1033D	N14	E88	.999	16408	8.0	33D	1N		P				EH	
ATHN	01	1005E	1007	1040D	N16	E80	.982	16408	7.4	35D	1B	1		1007	163	4.8		
280 KHAR	01	1050E		1107D	N19	E11	.311	16398	2.3	17D	-F		P	1053	30	.3	DT	ZX
281 KHAR	01	1133E		1140D	N19	E12	.321	16398	2.4	7D	-F		P	1133	30	.3	DT	ZX
GRP79282	01	1653	1654+1	1716	N13	W63	.889	16394	28.0	13	-N				30	.7		
RAMY	01	1653	1654	1657D	N12	W62	.881	16394	28.1	4D	-B	3	C		19			
HOLL	01	1654E	1655U	1708	N14	W65	.904	16394	27.8	12D	-N	3	C		40			
283 RAMY	01	1755	1802	1805	N18	E64	.898	16406	6.5	10	-F	3	C		19			ZX
284 RAMY	01	1848	1848	1906	N12	E35	.580	16402	4.4	18	-F	3	C		19		F	ZX
GRP79285	01	1928	1928	1950	N14	E08	.215	16398	2.4	22	-N							
RAMY	01	1928	1928U	1953D	N19	E07	.278	16398	2.3	25D	-N	3	C		37		F	
HUAN	01	1935E		1947	N10	E10	.197	16398	2.6	12D	-F	1	P				E	
GRP79286	01	2001E	2005+4	2043	N15	E08	.228	16398	2.4	42	-N						F	
CULG	01	2001E	2009U	2049U	N13	E06	.181	16398	2.3	48D	1N		P	2009	260	2.7	FB	
CULG	01	2001E	2005U	2036	N17	E11	.285	16398	2.7	35D	-N		C	2005	40	.4		
287 CULG	01	2056	2104	2108D	S18	W31	.614	16398	30.5	12D	-N		P	2104	40	.5		ZX
288 CULG	01	2122	2145	2236	N04	E32	.529	16402	4.3	74	-F		C	2145	100	1.2	IF	ZX

Hα SOLAR FLARES

NOVEMBER 1979

OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IMPOR-TANCE	OBS.		MEASUREMENTS			REMARKS	
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Millionths of Disk	CORR. AREA Sq. Deg.		
289 CULG	01	2137	2201	2221	N24	E18	.441	16399	3.3	44	-F		C	2201	80	.9		ZX
GRP79290	01	2153+3	2159+1	2206	N08	W79	.980	16386	27.0	13	-N				50		G	
CULG	01	2153	2200	2207	N08	W80	.983	16386	26.9	14	-N		C	2200	50			
BIGB	01	2156	2159	2204	N09	W78	.976	16386	27.1	8	-N		C	2159	50		G	
291 CULG	01	2242	2250	2306	N15	E65	.904	16406	6.8	24	-F		C	2250	30	.7		ZX
292 CULG	01	2302	2306	2314	S15	E39	.685	16401	4.9	12	-F		C	2306	40	.6	L	ZX
293 CULG	01	2353	2402	0011	N15	E64	.897	16406	6.8	18	-F		C	2402	40	.9		ZX
294 CULG	01	2353	2404	0025	N17	E09	.265	16398	2.7	32	-N	*	C	2404	120	1.2		ZX
295 VORO	02	0222E		0236	N17	E04	.230	16398	2.4	140	-N		C	0224	63	.7	E	ZX
296 CULG	02	0254	0258	0317	S24	E75	.979	16410	7.7	13	-F		C	0258	20			ZX
297 CULG	02	0313	0318	0329	S18	W33	.635	16388	30.7	16	-F		C	0318	40	.5	G	ZX
298 RAMY	02	1254	1255	1300	S29	W06	.556	16404	2.1	6	-F	3	C		43			ZX
299 HTPR	02	1348	1351	1355	N12	E20	.362	16402	4.1	7	-F		C	1351	40	.4		ZX
300 HTPR	02	1509	1510	1511	N16	W10	.263	16398	1.9	2	-F		C	1510	30	.3		ZX
301 RAMY	02	1639	1642	1709	S14	E20	.454	16401	4.2	30	-N	3	C		121		F	ZX
302 RAMY	02	1655	1655	1700	N12	E22	.392	16402	4.4	5	-N	3	C		23			ZX
303 BIGB	02	1757	1759U	18060	S14	E19	.443	16401	4.2	90	-F	1			50	.5		ZX
304 BIGB	02	1802	1804	1815	N18	W09	.280	16398	2.1	3	-F	1			25	.3		ZX
GRP79305	02	1812+2	1815+1	1826	S20	W85	.998	16384	27.4	14	-F							
BIGB	02	1812	1815	1828	S19	W85	.998	16384	27.4	16	-F	1						
RAMY	02	1814	1816	1823	S22	W85	.999	16384	27.4	9	-F	3	C					
GRP79306	02	1823+6	1830+2 1957+0	1901	N12	E21	.377	16402	4.3	38	-F				70	.8	F	
BIGB	02	1823	1830	18520	N07	E25	.423	16402	4.6	290	-F	1			37	.5		
HOLL	02	1825	1857	1924	N12	E24	.422	16402	4.6	59	-F	2	C		87		F	
RAMY	02	1829	1832	1843	N12	E21	.377	16402	4.3	14	-F	3	C		32		F	
BIGB	02	1855	1857	1911	N11	E16	.296	16402	4.0	6	-N	1			50	.5		
307 BIGB	02	1906	1907	1910	N17	W11	.287	16398	2.0	4	-F	1			25	.3		ZX
308 BIGB	02	1934	1935	1941	N17	W11	.287	16398	2.0	7	-F	1			25	.3		ZX
309 CULG	02	2011	2016	2022	N18	W11	.299	16398	2.0	11	-F		C	2016	40	.4		ZX
310 CULG	02	2047	2050	2059	N14	W03	.176	16398	2.6	12	-F		C	2050	50	.5		ZX
GRP79311	02	2114	2116 2339	2353	N20	W01	.271	16398	2.8	159	-N						K	
BIGB	02	2114	2116	2201	N20	W02	.273	16398	2.7	47	-N	1			25	.3		
BIGB	02	2126	2339	2353	N20	E01	.271	16398	3.0	147	-N	1			50	.5	K	
BIGB	02	2129	2133	2258	N19	W01	.254	16398	2.8	89	-N	1			30	.3		
GRP79312	02	2134	2141 2145	22030	N18	W11	.299	16398	2.1	29	-F							
BIGB	02	2134	2141U	22030	N19	W11	.312	16398	2.1	290	-F	1			12	.1		
BIGB	02	2144	2145	2146	N17	W12	.298	16398	2.0	2	-F	1			16	.2		
GRP79313	03	0016+5	0021+1	0027	N19	W04	.264	16398	2.7	11	-F						F	
PALE	03	0016	0021	0028	N19	W05	.269	16398	2.6	12	-F	3	C		31		F	
PURP	03	0021	0022	0025	N19	W04	.264	16398	2.7	4	-F		C					
GRP79314	03	0121+4	0127+3	0147	S15	E14	.415	16401	4.1	26	-F							
CULG	03	0121	0130	0146	S16	E13	.406	16401	4.0	25	-F		C	0130	80	.9		
PURP	03	0125	0127	0147	S16	E15	.424	16401	4.2	22	-N		C					
GRP79315	03	0201+8	0209+1	0220	N19	W04	.264	16398	2.8	19	-F							
CULG	03	0201	0209	0218	N19	W04	.264	16398	2.8	17	-F		C	0209	50	.6	T	
PURP	03	0209	0210	0221	N19	W04	.264	16398	2.8	12	-N		C					
316 PURP	03	0338	0346	0355	N19	W04	.264	16398	2.9	17	-F		P					ZX

Hα SOLAR FLARES

NOVEMBER 1979

OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IMPOR-TANCE	OBS.		MEASUREMENTS			REMARKS	
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX LONG. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.		
GRP79317	03	0451+7	0456+4	0508	N20	W05	.285	16398	2.8	17	-F				120	1.3	H	
CULG	03	0451	0456	0508	N20	W05	.285	16398	2.8	17	-F		C	0456	160	1.6	TH	
YUNN	03	0458	0500	0507	N20	W06	.290	16398	2.8	9	-N		C		79	.8		
318 PUPP	03	0800	0806	0812	N18	W08	.273	16398	2.7	12	-N		P					ZX
	03	0900	0910	NO FLARE PATROL														
319 KHAR	03	1155E	1158	1205D	S16	E15	.424	16401	4.6	10D	-F		P	1203	45	.5	D	ZX
GRP79320	03	1439+4	1440+4	1445	S17	E22	.467	16401	5.3	16	-B				120	1.3	H	
WEND	03	1439	1443	1447	S14	E17	.420	16401	4.9	8	-N		V	1443	170	1.3		
LOCA	03	1440E	1440	1454	S15	E22	.486	16401	5.3	14D	1N		V	1440	204	2.4	H	
RAMY	03	1442	1444	1452	S12	E21	.445	16401	5.2	10	-B	?	C		118		FDE	
HTPR	03	1442	1444	1511	S13	E22	.467	16401	5.3	29	-B		C	1444	120	1.2	E	
HOLL	03	1443	1443	1458	S13	E22	.467	16401	5.3	15	-B	3	C		58		F	
GRP79321	03	1513+4	1513	1543	N15	W50	.771	16389	30.9	30	-N						F	
			1523															
RAMY	03	1513	1513	1548	N15	W51	.782	16389	30.8	35	-N	3	C		34		F	
HOLL	03	1517	1523	1537	N15	W50	.770	16389	30.9	20	1N	3	C		237		F	
HOLL	03	1517	1519	1537	N15	W49	.761	16389	31.0	20	-F	?	C		57		F	
GRP79322	03	1517+3	1520+0	1552	S16	E08	.373	16401	4.2	35	-N							
HOLL	03	1517	1520	1553	S17	E07	.379	16401	4.2	36	1N	3	C		225		F	
HTPR	03	1517	1520	1550	S15	E10	.368	16401	4.4	33	-N		C	1520	60	.6	E	
323 HOLL	03	1622	1625	1630	S15	E07	.349	16401	4.2	8	-F	3	C		38			ZX
324 HOLL	03	1647	1647	1652	N18	W17	.322	16398	2.7	5	-F	3	C		21			ZX
GRP79325	03	1656+7	1701+0	1734	N13	W17	.325	16398	2.4	38	-N				50	.5	FH	
RAMY	03	1656	1701	1733	N14	W16	.319	16398	2.5	37	-N	3	C		69			
HOLL	03	1659	1701	1734	N17	W18	.339	16398	2.4	35	-N	3	C		44		F H	
GRP79326	03	1737+8	1738	1830	N18	W13	.322	16398	2.8	53	-N				70	.7	FU	
			1811+9															
PALE	03	1721E	1738	1758	N19	W12	.311	16398	2.8	350	-F	2	C		35		F	
HOLL	03	1737	1820	1838	N17	W17	.319	16398	2.8	61	-B	3	C		60		F	
RAMY	03	1737	1811	1830	N18	W14	.333	16398	2.7	53	-N	3	C		83		F U	
GRP79327	03	1754+3	1803+4	1837	S15	E06	.344	16401	4.2	43	1B				270	2.9	FU	
RAMY	03	1754	1803	1837	S15	E06	.344	16401	4.2	43	1B	3	C		271		F	
HOLL	03	1757	1804	1838	S17	E07	.379	16401	4.3	41	1B	3	C		288		F	
PALE	03	1805E	1807U	1823	S15	E05	.339	16401	4.1	18D	-N	2	C		124		U F	
GRP79328	03	1948+7	1952+2	2013	N18	W14	.333	16398	2.8	25	-F						FH	
HOLL	03	1948	1954	2018	N18	W15	.344	16398	2.7	30	-N	3	C		109		F	
PALE	03	1951	1952	2017	N18	W13	.322	16398	2.9	16	-F	2	C		38		H F	
329 CULG	03	2032	2034	2038	N19	E03	.244	16402	4.1	6	-N		C	2034	120	1.3		ZX
GRP79330	03	2111+6	2117+0	2126	S16	E03	.349	16401	4.1	15	-F				50	.5		
CULG	03	2111	2117	2126D	S15	E02	.347	16401	4.0	15D	-F		C	2117	70	.7		
HOLL	03	2117	2117	2126	S16	E05	.355	16401	4.3	9	-F	3	C		25			
GRP79331	03	2123>9	2213+1	2232	N18	W17	.363	16398	2.6	69	-N				140	1.5	F	
CULG	03	2123	2213	2236	N19	W17	.378	16398	2.6	73	-N		C	2213	180	1.9		
HOLL	03	2152	2214	2216D	N17	W16	.346	16398	2.7	24D	-B	?	C		140		F	
PALE	03	2204	2206	2226	N18	W20	.406	16398	2.4	2	-F	2	C		54		FDE	
MANI	03	2215E	2215U	2227D	N18	W17	.368	16398	2.7	12D	-N	3	C		100		F	
332 CULG	03	2249	2256	2313	N25	E53	.818	16409	7.9	24	?N		C	2256	200	3.4	F	ZX
	IMP.1 NO : HOLL																	
333 CULG	03	2320	2335	2347	S25	W54	.866	16388	30.9	27	-F		C	2335	40	.8		ZX
334 HOLL	03	2344	2344	2348D	N13	E04	.168	16402	4.7	4D	-N	2	C		30			ZX
GRP79335	04	0018	0019	0023	N19	W18	.392	16398	2.7	5	-F							
PURP	04	0019	0019	0020	N19	W19	.404	16398	2.6	2	-F		P					
YUNN	04	0020E	0020	0025	N19	W17	.380	16398	2.7	50	-F		P		63	.7		
336 CULG	04	0051	0053	005F	S14	W04	.318	16401	3.7	9	-F		C	0053	20	.2		ZX

Hα SOLAR FLARES

NOVEMBER 1979

OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IMPOR-TANCE	OBS.		MEASUREMENTS			REMARKS	
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX WEST. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONF.	TYPE	TIME UT	MEAS. AREA Mill of Disk	CORR. AREA Sq. Deg.		
GRP79337	04	0121>9	0130+6	0152	N18	W24	.459	16398	2.3	31	1N				260	2.9	E	
CULG	04	0121	0133	0212	N18	W24	.459	16398	2.3	41	1N		C	0132	270	3.1		
YUNN	04	0127	0130	0150	N20	W23	.461	16398	2.3	23	1N		C		251	2.8	E	
PURP	04	0133	0136	0152	N17	W24	.452	16398	2.3	19	1N		C					
GRP79338	04	0148+4	0152+2	0155	N09	E06	.134	16402	4.5	7	-N				160	1.6		
CULG	04	0148	0154	0217	N08	E08	.154	16402	4.7	19	-N		C	0154	160	1.6		
YUNN	04	0150	0152	0155	N09	E06	.134	16402	4.5	5	-N		C		173	1.7		
PURP	04	0152	0153	0154	N11	E05	.148	16402	4.5	2	1N		C					
339 CULG	04	0158	0203	0221	S17	W01	.360	16401	4.0	23	-F		C	0203	100	1.1		ZX
340 CULG	04	0229	0230	0233	S14	E14	.388	16401	5.2	4	-N		C	0230	80	.8	V	ZX
341 CULG	04	0240	0244	0249	S21	W69	.951	16388	29.9	9	-F		C	0244	30			ZX
342 CULG	04	0300	0314	0341	N35	W52	.839		31.2	41	-F		C	0314	50	.9	G	ZX
GRP79343	04	0318	0321	0326	N13	W11	.243	16398	3.3	8	-N						H	
CULG	04	0318	0321	0329	N13	W11	.243	16398	3.3	11	-N		C	0321	120	1.2	H	
PURP	04	0322E	0322	0323	N13	W12	.256	16398	3.2	10	-N		P					
GRP79344	04	0331+3	0336+2	0342	S17	W02	.361	16401	4.0	11	-N				120	1.3		
CULG	04	0331	0336	0353	S14	W02	.377	16401	4.0	22	-N		C	0336	150	1.7		
PURP	04	0333	0338	0342	S16	W02	.345	16401	4.0	9	-N		P					
YUNN	04	0334	0336	0342	S17	W01	.360	16401	4.1	8	-N		C		94	1.0		
GRP79345	04	0342+0	0343+2	0400	N18	W18	.382	16398	2.8	18	-F							
YUNN	04	0342	0345	0347	N19	W19	.404	16398	2.7	5	-N		C		79	.9		
PURP	04	0342	0343	0413	N19	W18	.382	16398	2.8	31	-F		P					
346 CULG	04	0528	0537	0540	S16	E72	.961	16413	9.6	14	-F		C	0533	40			ZX
	04	0727	0745	NO FLARE PATROL														
347 HUAN	04	1346		1400	N19	E35	.606	16406	7.2	14	-F	1	C				D	ZX
	04	1419	1424	NO FLARE PATROL														
348 HUAN	04	1430		1440D	N25	W67	.924	16389	30.6	100	-N	1	P	1433	50		E	ZX
	04	1432	1435	NO FLARE PATROL														
	04	1440	1506	NO FLARE PATROL														
GRP79349	04	2045+3	2052+2	2117	N23	E76	.968	16414	10.6	32	-N				50			
CULG	04	2045	2054	2113	N23	E78	.976	16414	10.7	28	1N		C	2054	60			
BIGB	04	2048	2052	2121	N23	E75	.964	16414	10.5	37	-N		C	2052	40			
350 CULG	04	2051	2055	2115	N22	W33	.597	16398	2.4	24	-F		C	2055	60	.8		ZX
351 CULG	04	2235	2241	2256	N18	W75	.964	16389	30.3	21	?F		C	2241	80			ZX
	IMP.1 NO 1 PALE HOLE																	
352 CULG	04	2248	2251	2307	N19	E18	.382	16406	6.3	19	-F		C	2251	20	.2		ZX
GRP79353	04	2345+3	2351+0	0007D	S15	W12	.383	16401	4.1	21	-B						HV	
CULG	04	2346	2351	0042	S15	W13	.391	16401	4.0	56	1B		C	2351	380	4.1	VH	
BIGB	04	2349	2351	0007	S15	W12	.383	16401	4.1	18	-N		C	2351	130	1.4		
354 PURP	05	0037	0042	0126	N19	E31	.551	16406	7.4	49	?N		C					ZX
	IMP.1 NO 1 CULG PALE																	
GRP79355	05	0042+1	0045+1	0056	S17	W05	.368	16401	4.7	14	-F							
CULG	05	0042	0045	0100	S16	W05	.352	16401	4.7	18	-N	*	C	0045	140	1.4		
PURP	05	0043	0046	0051	S18	W06	.387	16401	4.6	8	-F	*	C					
GRP79356	05	0200+1	0202+3	0231	N18	E29	.525	16406	7.3	31	-N						FH	
CULG	05	0200	0205	0247	N19	E29	.525	16406	7.3	47	-N		C	0205	160	1.9	HT	
PURP	05	0201	0202	0223	N19	E31	.551	16406	7.4	22	1N		P					
MANI	05	0212E	0212U	0231	N18	E28	.512	16406	7.2	190	-N	?	V		129	1.4	F	
357 CULG	05	0227	0231	0242	S32	E90	1.001	16416	11.9	15	-N		C	0231	40			ZX
GRP79358	05	0247>9	0334 0408	04120	S14	E59	.876	16413	9.5	85	?N						KL	
CULG	05	0247	0334	0442	S12	E54	.829	16413	9.2	115	?N		C	0334	380	6.8	TLK	
	IMP.2 IMP.3																	

Hα SOLAR FLARES

NOVEMBER 1979

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS	
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX LONG. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONG.	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.		
PURP	05	0354	0408	0412	S16	E64	.916	16413	10.0	18	-N		C					
359 CULG	05	0341	0348	0400	N24	W36	.643	16398	2.5	19	?N		C	0348	240	3.1	L	ZX
	IMP.1 NO 1 PURP																	
GRP79368	05	0507>9	0535+4	0553D	S14	E57	.860	16413	9.5	46	1N						HL	
CULG	05	0507	0539	0716U	S12	E52	.810	16413	9.1	129D	2N		C	0539	500	8.5	TLH	
PURP	05	0529	0535	0553	S16	E63	.909	16413	10.0	24	1N		C					
GRP79361	05	0526+3	0533+3	0553	N20	W42	.694	16398	2.1	27	1N							
CULG	05	0526	0533	0552	N20	W41	.682	16398	2.2	26	1N		C	0533	240	3.2		
PURP	05	0529	0536	0553	N20	W43	.705	16398	2.0	24	1N		C					
362 CULG	05	0552	0557	0605	S16	W03	.345	16401	5.0	13	-F		C	0557	80	.8	T	ZX
363 PURP	05	0722	0830	0834	S16	E62	.902	16413	10.0	72	-F		C					ZX
364 CULG	05	0728	0729	0735	S13	W03	.297	16401	5.1	7	-N		C	0729	70	.7		ZX
365 CULG	05	0749	0754	0757D	N18	W81	.985	16389	38.3	8D	-N		C	0754	40		T	ZX
	05	0844	0910	NO FLARE PATROL														
366 MONT	05	0919	0921	0925	S14	E55	.843	16413	9.5	6	-N		C	0921	80		DH	ZX
	05	0920	1007	NO FLARE PATROL														
367 ABST	05	1010E	1041	1053D	S14	E57	.860	16413	9.7	43D	2F		P	1041	262	5.5	BFJ	ZX
368 ABST	05	1013	1015	1027D	N13	E20	.408	16406	6.9	14D	-F		P	1015	175	2.0	E	ZX
	05	1027	1032	NO FLARE PATROL														
369 ABST	05	1032	1051	1053D	N18	W80	.983	16389	38.4	21D	1F		P	1051	87		DJ	ZX
370 ABST	05	1038	1042	1047	S22	E20	.538	16412	6.9	9	-F		C	1042	157	1.9	E	ZX
371 ABST	05	1041	1043	1053	N13	W14	.284	16402	4.4	12	-N		C	1043	175	1.9	E	ZX
	05	1055	1103	NO FLARE PATROL														
372 LVOV	05	1213	1214	1226	S43	E23	.781		7.2	13	-N		C	1214	100	1.7	E	ZX
373 LVOV	05	1218	1222	1224	N03	E22	.374	16408	7.2	6	-F		C	1222	100	1.1		ZX
374 BIGB	05	1541	1542	1556	S15	W54	.836	16396	1.6	15	-F		C	1542	60	1.1		ZX
GRP79375	05	1736+4	1741+1	1752	S14	E49	.786	16413	9.4	16	1N						FH	
HOLL	05	1400E	1741	1753	S14	E52	.815	16413	9.5	233D	1N	*	C		188		F H	
PALE	05	1736	1741	1750	S16	E49	.792	16413	9.4	14	1N	*	C		117		F H	
BIGB	05	1740	1742	1752	S13	E48	.773	16413	9.3	12	-N	*	C	1742	40	.6		
GRP79376	05	1758+2	1806	1845	S14	E50	.796	16413	9.5	47	-N				60	1.0	H	
			1840+2															
HOLL	05	1758	1842	1856	S15	E56	.854	16413	9.9	58	-B	*	C		63		F H	
PALE	05	1800	1806	1822	S15	E53	.827	16413	9.7	22	-F	*	C		39			
HUAN	05	1834E		1842D	S13	E46	.752	16413	9.2	8D	-N	*	P	1837	70	1.1	E	
BIGB	05	1836	1840	1847	S13	E47	.762	16413	9.3	11	-B	*	C	1840	40	.6		
GRP79377	05	1802>9	1818+1	1915	N18	W45	.722	16398	2.4	73	-N				80	1.2	Z	
BIGB	05	1802	1818	1915	N22	W45	.733	16398	2.4	73	-N		C	1818	80	1.2		
HOLL	05	1805	1818	1919	N18	W44	.710	16398	2.5	74	1B	2	C		282		Z F	
PALE	05	1814	1819	1855	N18	W45	.722	16398	2.4	41	-F	3	C		73		FDE	
378 PALE	05	1820	1820	1824	N16	W82	.988	16389	30.6	4	-F	3	C					ZX
379 HOLL	05	1918	1919	1932	S12	E48	.778	16413	9.4	14	-B	*	C		49		F H	ZX
GRP79380	05	1935>9	1949+1	2020	S14	E50	.796	16413	9.6	45	-B				70	1.1	FH	
			2009															
PALE	05	1829	2009	2145	S14	E50	.795	16413	9.5	196	-B	*	C		134			
HOLL	05	1935	1949	2020	S13	E50	.793	16413	9.6	45	-B	*	C		90		F H	
BIGB	05	1948	1950	1958	S15	E51	.809	16413	9.7	10	-N	*	C	1950	50	.8		
381 HOLL	05	1952	1954	2011	N20	E17	.391	16406	7.1	9	-N	2	C		31		F	ZX

Hα SOLAR FLARES

NOVEMBER 1979

OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONG	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
GRP79382	05	2028+0	2029 2036+4	2108	N18	E17	.371	16406	7.1	40	-B				170	1.8	H
HOLL	05	2028	2036	2108	N20	E17	.391	16406	7.1	40	-B	3	C		184		DE
PALE	05	2028	2029	2038	N16	E07	.239	16406	6.4	10	-F	3	C		36		
PALE	05	2036	2038	2046	N19	E18	.393	16406	7.2	10	-N	3	C		107		
CULG	05	2039E	2040U	2115	N18	E18	.383	16406	7.2	36D	1B		C	2040	230	2.5	H
GRP79383	05	2044+4	2048+1	2058	S22	E12	.477	16412	6.8	14	-N				160	1.9	L
CULG	05	2044	2048	2058	S22	E12	.477	16412	6.8	14	-B		C	2048	160	1.8	L
HOLL	05	2047	2049	2100	S20	E12	.450	16412	6.8	13	-B	3	C		165		DE
PALE	05	2048	2049	2053	S23	E17	.525	16412	7.1	5	-F	3	C		51		
GRP79384	05	2045+2	2049+1	2107	N18	W44	.710	16398	2.6	22	-B				100	1.4	
CULG	05	2048	2050	2107	N18	W43	.699	16398	2.6	22	-B		C	2050	100	1.4	
HOLL	05	2046	2049	2145	N17	W44	.708	16398	2.6	59	-B	3	C		122		
PALE	05	2047	2049	2107	N18	W47	.744	16398	2.3	20	-N	3	C		71		
385 CULG	05	2052	2057	2102	S13	E69	.943	16415	11.0	10	-F		C	2057	20	.8	ZX
386 CULG	05	2056	2059	2106	S32	E75	.983	16416	11.5	13	-N		C	2059	30		ZX
387 HOLL	05	2059	2059	2104	S12	E49	.780	16413	9.5	5	-B	*	C		28		DE ZX
388 PALE	05	2112	2115	2127	N18	W47	.744	16398	2.4	15	-F	3	C		61		ZX
GRP79389	05	2113>9	2148+3 2250+7	2336	S14	E49	.786	16413	9.6	143	2B						EHLV
CULG	05	2113	2116	2119	S14	E57	.860	16413	10.2	6	-F	*	C	2116	70	1.3	T
HOLL	05	2117	2148	2339	S12	E48	.770	16413	9.5	142	2B	*	C		531		DE H
PALE	05	2136	2149	2326	S14	E49	.786	16413	9.6	110	2B	*	C		462		F H
CULG	05	2145	2151	2252	S14	E44	.734	16413	9.2	67	2B	*	C	2151	700	10.5	VHTL
PALE	05	2149	2149	2153U	S14	E49	.786	16413	9.6	4D	2B	*	C		535		FDE
CULG	05	2235	2257	2334U	S16	E51	.812	16413	9.8	59D	2N	*	C	2257	350	6.0	TL
BIGB	05	2243	2250	2323	S15	E51	.809	16413	9.8	4D	-B	*	C	2258	100	1.6	
VORO	05	2244E		2310D	S14	E46	.755	16413	9.4	26D	1N	*	P	2300	206	3.2	EH
PALE	05	2327	2333	2337	S14	E48	.776	16413	9.6	10	-F	*	C		19		DE
390 CULG	05	2130	2147	2158	S15	E89	1.000	16418	12.6	28	-F		C	2147	30		ZX
391 PALE	05	2213	2213	2228	S22	E11	.471	16412	6.8	7	-F	3	C		30		DE ZX
392 CULG	05	2224	2232	2249	S17	E63	.911	16417	10.7	25	-F		C	2232	80	1.9	ZX
393 BIGB	05	2244	2245	2251	S15	E90	1.000	16418	12.7	7	-N		C	2245	30		ZX
GRP79394	05	2342+5	2347+1	2357	S14	E43	.723	16413	9.2	15	1B						HLV
HOLL	05	2342	2346	2356	S14	E45	.745	16413	9.4	16	1B	3	C		235		DE H
BIGB	05	2346	2347	2353	S14	E43	.723	16413	9.2	7	-B		C	2347	40	.6	
CULG	05	2346	2347	2359	S14	E43	.723	16413	9.2	13	1B		C	2347	310	4.3	VLT
PALE	05	2347	2347	2356	S15	E43	.727	16413	9.2	9	1B	3	C		235		F
VORO	05	2348E		2356	S15	E44	.738	16413	9.3	8D	1B		P	2349	143	2.1	DH
395 PURP	05 IMP.1 NO 3 PALE	2358E	2358	0006	S16 BIGB	W12 VORO	.395	16401	5.1	8D	?N		P				ZX
396 VORO	06	0008	0008	0011	S13	E45	.740	16413	9.4	3	-N		C	0008	54	.8	D ZX
GRP79397	06	0104+1	0108 0130	0158	S15	E47	.769	16413	9.6	54	-N						EJ
PURP	06	0104	0130	0158	S16	E49	.792	16413	9.7	54	1N		C				
VORO	06	0105	0108	0126D	S15	E45	.748	16413	9.4	19D	-N		C	0108	90	1.4	EJ
398 CULG	06	0154	0200	0214	N14	E74	.959		11.6	20	-F		C	0200	50		ZX
399 PURP	06 IMP.1 NO 3 CULG	0232E	0232	0235	S13 MITK	E45	.740	16413	9.5	7D	?N		C				ZX
GRP79400	06	0306+7	0317+6	0328D	S15	E47	.769	16413	9.7	22	2N						E
MITK	06	0306	0317	0328	S15	E46	.758	16413	9.6	22	1N		C	0317	150	2.3	ET
PURP	06	0313	0323	0413	S15	E48	.779	16413	9.7	50	3B		C		944	15.0	
GRP79401	06	0407+6	0418+1	0436	S13	E42	.707	16413	9.3	29	1N						HL
CULG	06	0407	0419	0503U	S13	E43	.718	16413	9.4	56D	2N		C	0419	500	7.8	LHT
MITK	06	0409	0418	0431	S12	E42	.703	16413	9.3	22	1N		C	0418	310	4.5	HT
PURP	06	0413	0419	0431	S13	E42	.707	16413	9.3	18	1B		C				
PURP	06	0436	0440	0446D	S14	E53	.824	16413	10.2	4D	1N		P				

Hα SOLAR FLARES

NOVEMBER 1979

OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS	
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONF.	TYPE	TIME UT	MEAS. AREA Mill of Disk	CORR AREA Sq. Deg.		
402 PURP	06	0511	0512	0521	N19	E11	.318	16406	7.0	10	1N		C					ZX
403 PURP	06	052?	0530	0541	S14	E39	.677	16413	9.2	14	?N		C					ZX
	IMP.1 NO : MITK																	
404 ABST	06	0607	0617	0640	S15	E90	1.000	16418	13.0	33	?F		C	0617	79		AD	ZX
	IMP.1 NO : PURP MITK																	
405 ABST	06	0616	0620	0623	S33	E70	.968	16416	11.5	5	?N		C	0620	87		D	ZX
	IMP.1 NO : PURP MITK																	
406 ABST	06	0627	0629	0633	N13	W54	.816	16398	2.2	6	-F		C	0629	79	1.3	D	ZX
407 ABST	06	0627	0631	0636	N34	E90	.999	16419	13.0	9	?F	*	C	0631	79		ADJ	ZX
	IMP.1 NO : PURP MITK																	
409 ABST	06	0633	0636	0641	S17	E59	.882	16417	10.7	8	?F		C	0636	96	2.1	D	ZX
	IMP.1 NO : PURP																	
409 ABST	06	0649	0653	06590	N37	E90	.999	16419	13.0	100	?F		P	0653	87		ADJ	ZX
	IMP.1 NO : PURP																	
410 ABST	06	0706E	0708	0730	S24	E07	.480	16412	6.8	240	-F		P	0708	87	1.0	DJ	ZX
GRP79411	06	071E	071E	07250	S14	E37	.654	16413	9.1	10	-B							
CATA	06	0715	0715	07250	S14	E37	.654	16413	9.1	100	-B	*	P	0715	140	1.9		
PURP	06	0715E	0716	07160	S14	E38	.665	16413	9.2		1N	*	P					
GRP79412	06	0739	0748+2	0811	S22	E06	.447	16412	6.8	32	-F						D	
ABST	06	0739	0750	0823	S21	E05	.459	16412	6.7	44	-F		C	0750	87	1.0	D	
PURP	06	074RE	1748	0758	S22	E08	.455	16412	6.9	100	1F		C					
GRP79413	06	0759+4	0815+7	0901	S15	E44	.737	16413	9.6	67	1N				250	5.1	IJKL	
ABST	06	0678	0819	09090	S17	E41	.714	16413	9.4	1310	1N	*	P	0819	306	4.4	FJKL	
PURP	06	0758	0822	0841	S15	E45	.779	16413	9.9	43	1N	*	C					
CATA	06	0803E	0815	08250	S15	E43	.726	16413	9.6	200	1B	*	P	0815	281	4.2	T	
KANZ	06	0802	0816	08160	S15	E44	.737	16413	9.6	140	1N	*						
HTPR	06	0828E		0915	S13	E46	.751	16413	9.8	370	2N	*	C	0840	450	5.3	EI	
MONT	06	0845E	0845	0856	S14	E44	.733	16413	9.7	110	1N	*	C	0845	250		B	
414 ABST	06	0818	0831	0856	N24	E84	.904	16414	11.1	38	?N		C	0831	175	3.8	FJ	ZX
	IMP.1 NO : PURP HTPR																	
415 ABST	06	0843	0901	09090	S23	E05	.459	16412	6.7	260	-N		P	0901	87	1.0	D	ZX
GRP79416	06	0850+5	0855+1	0930	N34	E98	.999	16419	13.1	10	1N				70		ADJ	
ABST	06	0850	0856	0900	N34	E90	.999	16419	13.1	10	1N		C	0856	79		ADJ	
CATA	06	0855	0855	0900	N34	E90	.999	16419	13.1	5	1N	2	C	0855	56			
GRP79417	06	0859+5	0855+4	0916	N14	W56	.834	16398	2.2	26	1B				230	4.3		
ABST	06	0850	0855	0919	N13	W56	.834	16398	2.2	19	1B	*	P	0856	279	4.9	F	
MONT	06	0851	0859	0916	N14	W66	.913	16398	1.4	25	1B	*	C	0859	220			
HTPR	06	0854	0859	0916	N10	W51	.786	16398	2.5	22	-B	*	C	0859	130	2.0	E	
CATA	06	0855	0855	0915	N14	W56	.834	16398	2.2	20	1B	*	C	0855	252	4.7		
GRP79418	06	1010+4	1010	1022	N32	E90	.999	16419	13.2	12	-N						E	
			1017															
CATA	06	1010	1010	10150	N33	E90	.999	16419	13.2	50	1N	1	P	1010	84			
CATA	06	1010	1010	10150	N30	E30	.999	16419	13.2	50	-N	1	P	1010	28			
MONT	06	1314	1017	1022	N33	E90	.999	16419	13.2	8	-N		C	1017	70		E	
419 MONT	06	1126	1128	1134	S15	E40	.693	16413	9.5	8	-N		C	1128	220			ZX
GRP79420	06	1138	1141	1156	S17	E33	.594	16413	9.0	18	-N				80	1.0	E	
MONT	06	1138	1141	1156	S12	E33	.594	16413	9.0	18	-N		C	1141	110			
HUAN	06	1144E		11540	S13	E33	.600	16413	9.0	100	-N	2	P	1144	50	.6	E	
421 HUAN	06	1314	1316	1326	S15	E35	.636	16413	9.2	12	-N	1	C	1316	50	.7		ZX
422 HTPR	06	1337	1339	1350	N18	E06	.264	16406	7.0	13	-F		C	1339	20	.2	E	ZX
GRP79423	06	1349+1	1351+2	1403	S14	E39	.677	16413	9.5	14	-F				40	.5	E	
HUAN	06	1349	1351	1400	S15	E35	.636	16413	9.2	11	-N	1	C	1351	40	.5	E	
HTPR	06	1350	1353	1405	S13	E44	.725	16413	9.9	15	-F		C	1353	40	.6	E	

Hα SOLAR FLARES

NOVEMBER 1979

OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IMPOR-TANCE	OBS.		MEASUREMENTS			REMARKS	
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX LONG. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONF.	TYPE	TIME UT	MEAS. AREA Millionths of Disk	CORR. AREA Sq. Deg.		
GRP79424	06	1353+6	1408	1439	S13	E48	.772	16413	10.2	40	-F				25	.4		
HTPR	06	1359	1408	1450	S14	E52	.815	16413	10.5	51	-F		C	1408	30	.4	E	
HUAN	06	1405		1426	S12	E45	.737	16413	10.0	23	-F	1	C	1407	20	.3	D	
GRP79425	06	1359+1	1400	1408	N17	W54	.814	16398	2.5	9	-F						E	
HTPR	06	1359	1400	1410	N18	W53	.806	16398	2.6	11	-F	*	C	1400	20	.3	E	
HUAN	06	1400		1405	N17	W55	.824	16398	2.5	5	-F	*	C					
GRP79426	06	1414+0	1417+2	1452	N18	W51	.786	16398	2.8	38	-N						EI	
HUAN	06	1414	1417	1443	N18	W55	.825	16398	2.5	29	-N	2	C	1417	80	1.3	E	
HTPR	06	1414	1419	1500	N19	W48	.757	16398	3.0	46	1N		C	1419	250	4.3	EI	
GRP79427	06	1445+2	1451+1	1524	S14	E38	.665	16413	9.5	39	-B				110	1.5	E	
HUAN	06	1445	1451	1521	S15	E34	.624	16413	9.2	36	-N	2	C	1451	70	.9	E	
HTPR	06	1447	1452	1526	S13	E43	.718	16413	9.8	39	1B		C	1452	150	2.1	E	
428 HUAN	06	1530		1537	N22	E08	.337	16406	7.2	*	-N	1	C					ZX
GRP79429	06	1540+2	1542+3	1549	S14	E36	.642	16413	9.4	9	-N				40	.5		
BIGB	06	1542	1542	1549	S13	E36	.637	16413	9.4	9	-F	1			50	.6		
HUAN	06	1541	1543	1551	S15	E36	.647	16413	9.4	10	-N	2	C	1543	30	.4		
HTPR	06	1542	1545	1548	S14	E47	.765	16413	10.2	6	-N		C	1545	30	.5		
430 HUAN	06	1610	1614	1618	N28	E55	.844	16414	10.8	8	-F	1	C	1614	30	.6		ZX
431 HUAN	06	1631		1642	S15	E80	.989	16418	12.7	12	-F	*	C					ZX
GRP79432	06	1631>9	1633+6	1715	S11	E32	.576	16413	9.1	44	-N				30	.4		
BIGB	06	1631	1633	1647	S12	E35	.619	16413	9.3	16	-F	1			25	.3		
HUAN	06	1634	1635	1641	S14	E36	.642	16413	9.4	7	-N	1	C	1635	40	.5		
BIGB	06	1638	1639	1715D	S11	E30	.550	16413	8.9	37D	-F	1			25	.3		
HUAN	06	1643		1717D	S11	E30	.550	16413	8.9	34D	-N	1	P	1651	30	.4		
433 HUAN	06	1645	1647	1649	N33	E90	.999	16419	13.4	4	-F	1	C	1647	20		D	ZX
434 HUAN	06	1736	1739	1744	S21	E01	.421	16412	6.8	8	-N	1	C	1739	40	.4		ZX
GRP79435	06	1803>9	1826 1855	1912	S15	E40	.693	16413	9.8	69	-N				80	1.1	E	
HUAN	06	1803		1922D	S15	E40	.693	16413	9.8	79D	-N	2	P	1855	65	.9	E	
BIGB	06	1823	1826	1848	S15	E40	.693	16413	9.8	25	-F		C	1826	40	.5		
BIGB	06	1852	1855	1912D	S16	E40	.698	16413	9.8	20D	-N		P	1855	100	1.3		
BIGB	06	1901	1902	1911	S15	E35	.626	16413	9.4	10	-B		C	1902	20	.3		
GRP79436	06	1957+7	2003+3	2029	S14	E38	.665	16413	9.7	32	?N							
CULG	06	1957E	2003U	2016	S13	E38	.660	16413	9.7	19D	?N		P	2003	400	5.6	T	
	IMP.2 IMP.S																	
BIGB	06	2004	2006	2042	S15	E39	.682	16413	9.8	38	-N		C	2006	50	.7		
437 BIGB	06	2007	2008	2028	S16	E78	.984	16418	12.7	21	-B		C	2008	20			ZX
438 CULG	06	2047	2052	2117	S16	E79	.986	16418	12.8	30	-F		C	2052	60			ZX
439 CULG	06	2055	2057	2116	S13	E33	.600	16413	9.3	11	-N		C	2057	80	1.0	FT	ZX
GRP79440	06	2112+4	2122+0	2152	S12	E28	.531	16413	9.0	40	-N						F	
CULG	06	2112	2122	2153	S12	E28	.531	16413	9.0	41	-N		C	2122	110	1.3	FT	
BIGB	06	2115	2122	2150	S12	E28	.531	16413	9.0	34	-N		C	2122	20	.2		
GRP79441	06	2138+3	2143+0	2214	S11	E37	.639	16413	9.7	36	-B						L	
CULG	06	2138	2143	2219	S11	E37	.639	16413	9.7	41	1B		C	2143	260	3.4	LT	
BIGB	06	2141	2143	2208	S11	E38	.651	16413	9.8	27	-N		C	2143	40	.5		
442 CULG	06	2211	2217	2224	S14	E29	.557	16413	9.1	13	-F		C	2217	40	.5	T	ZX
443 CULG	06	2231	2237	2313U	S15	E30	.577	16413	9.2	42D	-N	*	C	2237	120	1.5	FK	ZX
444 CULG	06	2236	2244	2254	N21	E53	.811	16414	10.9	18	-F		C	2244	60	1.1	H	ZX
445 CULG	06	2309	2321	2358	S21	W03	.423	16412	6.7	49	?F		C	2321	240	2.6		ZX
	IMP.1 NO # BIGB																	
GRP79446	06	2310>9	2323+2	2340	S13	E28	.538	16413	9.1	30	-N							
MANI	06	2310	2325	2343	S12	E28	.531	16413	9.1	33	-N	*	C		100			
CULG	06	2316	2324	2337	S13	E28	.538	16413	9.1	21	1B	*	C	2324	280	3.4	T	
BIGB	06	2320	2323	2331D	S14	E29	.557	16413	9.1	11D	-N	*	P	2323	60	.7		

Hα SOLAR FLARES

NOVEMBER 1979

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS	
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Mill of Disk	CORR. AREA Sq. Deg.		
447 CULG	06	2316	2335	2349	S35	E59	.924	16416	11.4	33	1N		C	2335	120	2.7		ZX
448 CULG	07	0003	0019	0047	N28	E55	.844	16414	11.1	44	?N		C	0019	210	3.8	F	ZX
	IMP.1 NO : PURP VORO MITK																	
449 VORO	07	0022	0024	0027	S14	E31	.581	16413	9.3	5	-N		C	0024	27	.3	DJ	ZX
450 PURP	07	0028		0031	S13	E27	.524	16413	9.0	3	-N		P					ZX
GRP79451	07	0044+1	0046+1	0051	S17	E27	.524	16413	9.1	7	-F						EHJ	
VORO	07	0044	0047	0053	S14	E27	.532	16413	9.1	9	-N		C	0047	99	1.2	HJ	
MITK	07	0045	0046	0049	S13	E27	.524	16413	9.1	4	-F		C	0046			E	
GRP79452	07	0052+3	0103+1	0113	S16	E31	.595	16417	9.4	21	-N						EHJ	
PURP	07	0052	0103	0112	S17	E32	.613	16413	9.4	20	1N		C					
VORO	07	0102	0104	0114	S16	E31	.595	16413	9.4	12	-N		C	0104	90	1.1	EHJ	
453 CULG	07	0111	0115	0130	N23	E55	.833	16414	11.2	19	?F		C	0115	110	2.0		ZX
	IMP.1 NO : PURP VORO MITK																	
454 MANI	07	0124E	0125	01270	S13	E31	.574	16413	9.4	30	-N	3	C		40		F	ZX
GRP79455	07	0153+5	0200+5	0226	S21	W02	.420	16412	6.9	33	-N				120	1.3	J	
CULG	07	0153	0205	0229	S21	W01	.419	16412	7.0	36	-N	*	C	0205	150	1.6		
MITK	07	0156	0200	02240	S20	W03	.406	16412	6.9	80	-F	*	P	0200			E	
VORO	07	0158	0202	0215	S21	E00	.419	16412	7.1	17	-N	*	C	0202	99	1.1	DJ	
PURP	07	0204E	0204	0226	S22	W03	.437	16412	6.9	220	1N	*	C					
456 CULG	07	0155	0206	0224	N24	E46	.751	16414	10.5	29	-F		C	0206	80	1.2		ZX
457 CULG	07	0254J	0306	03370	S14	E25	.508	16413	9.0	430	?F		C	0306	600	7.8	LT	ZX
	IMP.2 NO : PURP																	
GRP79458	07	0308	0311	0319	S37	E56	.902	16416	11.3	13	-F							
CULG	07	0306	0311	0323	S34	E56	.905	16416	11.3	17	-F		C	0311	60	1.4	T	
PURP	07	0312E	0312	0315	S32	E56	.899	16416	11.3	30	-N		P					
459 CULG	07	0331	0338	03400	N21	E53	.812	16414	11.1	90	-F		P	0338	60	1.0		ZX
460 PURP	07	0347	0349	0410	S15	E35	.635	16413	9.8	32	?N		C		717	8.2		ZX
	IMP.2 NO : MITK																	
461 PURP	07	0458E	0458	04580	S15	E29	.564	16413	9.4		1N		P					ZX
GRP79462	07	0512E		0540	S15	E33	.611	16413	9.7	28	1N							
CULG	07	0512E	0521U	05210	S15	E32	.600	16413	9.6	90	2N		P	0521	800	10.0	T	
PURP	07	0524E	0524	0540	S15	E34	.623	16413	9.8	160	1N		P					
463 PURP	07	0610	0611	0624	S15	E30	.576	16413	9.5	14	1N		C					ZX
GRP79464	07	0638	0641+1	0652	N15	W03	.251	16406	7.1	14	-N						DJ	
PURP	07	0638	0641	0645	N18	W03	.251	16406	7.1	7	-N		C					
ABST	07	0641E	0642	06580	N19	W04	.271	16406	7.0	170	-N		P	0642	131	1.4	DJ	
465 ABST	07	0641E	0645	06580	S14	E30	.569	16413	9.5	170	?N		P	0645	393	4.9	EJ	ZX
	IMP.1 NO : PURP																	
GRP79466	07	0641E	0645	06580	S21	00	.419	16412	7.3	17	-F						EJ	
ABST	07	0641E	0645	06580	S21	E02	.420	16412	7.4	170	-F		P	0645	175	2.0	EJ	
ABST	07	0641E	0645	06580	S21	W02	.420	16412	7.1	170	-F		P	0645	175	2.0	EJ	
467 ABST	07	0644E	0651	06580	S15	E65	.921	16418	12.2	140	-F		P	0651	87		DJ	ZX
GRP79468	07	0710+4	0710+6	0723	N17	W70	.938	16398	2.0	13	-N							
CATA	07	0710	0710	0725	N15	W68	.926	16398	2.2	15	-N	2	C	0710	56			
PURP	07	0714	0716	0720	N19	W72	.959	16398	1.9	6	1F		C					
469 HTPR	07	0738E		0800	N18	W68	.927	16398	2.2	220	-F		C	0747	20	.5		ZX
GRP79470	07	0902+3	0905+1	0928	S21	W07	.434	16412	6.9	26	1N				240	2.6	E	
			0912															
MONT	07	0902	0906	0927	S21	W06	.430	16412	6.9	25	-N		C	0906	220			
CATA	07	0905	0905	09300	S21	W07	.434	16412	6.9	250	1N	1	P	0905	309	3.5		
HTPR	07	0905E		0928	S21	W07	.653	16412	6.9	150	1N		C	0905	180	2.3	E	
ATHN	07	0910E	0912	09370	S23	W13	.494	16412	6.4	270	1B	1		0912	196	2.3		
KANZ	07	0913E		0928	S20	W07	.419	16412	6.9	150	-N	1					B	

Hα SOLAR FLARES

NOVEMBER 1979

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONF.	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
GRP79471	07	0917+7	0924+4	0936	S15	E24	.504	16413	9.2	19	-N				50	.6	E
KANZ	07	0917	0928	0940	S15	E25	.516	16413	9.3	23	-N	1					
MONT	07	0923	0924	0927	S15	E26	.528	16413	9.3	4	-F		C	0924	50		E
HTPR	07	0924		0931D	S14	E20	.448	16413	8.9	7D	-N		C	0925	40	.4	
ATHN	07	0925E	0927	0945D	S17	E23	.512	16413	9.1	20D	-B	1		0927	131	1.5	
472 ATHN	07	0943E	0944	1004D	S20	E65	.923	16418	12.3	21D	-B	1		0944	33	1.2	ZX
473 CATA	07	1005	1010	1035	S14	E17	.415	16413	8.7	30	-N	1	C	1010	112	1.3	ZX
474 KANZ	07	1051	1058	1106	N20	E49	.770	16414	11.1	15	-F	2					ZX
475 KANZ	07	1055	1058	1106	S22	W11	.468	16412	6.6	11	-F	2					ZX
476 ATHN	07	1150E	1152	1222D	N18	E68	.927		12.6	32D	-B	1		1152	33	1.2	ZX
477 RAMY	07	1200	1201	1206	N17	W63	.892	16398	2.8	6	-F	3	C		36		ZX
GRP79478	07	1204+9	1249+1	1302	S21	W17	.449	16412	6.8	58	1N				190	2.1	
RAMY	07	1204	1249	1302	S21	W09	.443	16412	6.9	58	-B	3	C		167		
CATA	07	1245	1250	1300D	S21	W11	.454	16412	6.7	50	1N	2	P	1250	224	2.6	T
GRP79479	07	1205+0	1210+5	1228	S14	E23	.484	16413	9.2	23	-B				70	.8	E
RAMY	07	1205	1214	1228	S14	E25	.508	16413	9.4	23	-B	3	C		64		
HTPR	07	1207	1215	1225	S14	E18	.426	16413	8.9	20	-B		C	1215	70	.7	E
ATHN	07	1209E	1210	1240D	S14	E23	.484	16413	9.2	31D	-B	1		1210	66	.8	
480 RAMY	07	1208	1209	1240	N24	E44	.731	16414	10.8	32	-F	3	C		35		ZX
481 HTPR	07	1243	1250	1310	S20	W28	.593	16401	5.4	27	-N		C	1250	150	1.7	ZX
482 HTPR	07	1315	1320	1322	S14	E17	.415	16413	8.8	4	-F		C	1320	20	.2	ZX
GRP79483	07	1329	1339+1	1357	S15	E15	.406	16413	8.7	28	1N				190	2.1	
HTPR	07	1329	1339	1353	S14	E13	.374	16413	8.5	24	-F		C	1339	150	1.5	
ATHN	07	1339E	1340	1400D	S17	E17	.449	16413	8.8	21D	1B	1		1340	229	2.6	
484 RAMY	07	1456	1459	1517	S14	E63	.906	16418	12.3	11	-N	3	C		17		ZX
GRP79485	07	1508+2	1510+6	1527	S14	E19	.437	16413	9.1	19	-F				25	.3	E
RAMY	07	1508	1510	1525	S14	E24	.496	16413	9.4	17	-N	3	C		22		
HTPR	07	1513	1516	1528	S14	E15	.394	16413	8.8	15	-F		C	1516	30	.3	E
486 RAMY	07	1527	1528	1537	N17	W07	.257	16406	7.1	10	-N	3	C		27		ZX
	07	1642	1915	NO FLARE PATROL													
GRP79487	07	1937+2	1941+1	1957	S13	E23	.475	16413	9.5	20	-B				35	.4	
HOLL	07	1937	1941	1948D	S13	E24	.487	16413	9.6	11D	-B	*	C		19		
HOLL	07	1937	1941	1957	S13	E20	.438	16413	9.3	20	-B	*	C		19		DE
RAMY	07	1939	1942	1944D	S14	E25	.508	16413	9.7	30	-B	*	C		31		F
488 RAMY	07	1938	1941	1949	N20	W09	.316	16406	7.1	11	-N	3	C		29		ZX
GRP79489	07	1945+0	1945+1	2026	N24	E41	.699	16414	10.9	41	-N				25	.4	
RAMY	07	1945	1945	2027	N24	E40	.689	16414	10.8	42	-N	3	C		24		
HOLL	07	1945	1946	2025	N25	E43	.725	16414	11.0	40	-N	3	C		27		
GRP79490	07	2000	2002 2034+2	2136D	S13	E22	.462	16413	9.5	96	1B				260	2.9	
RAMY	07	1939	2036U	2136D	S13	E20	.438	16413	9.3	117D	-B	*	C		213		FDE
HOLL	07	2030	2034	2138D	S12	E20	.429	16413	9.3	38D	1B	*	C		196		DE
HOLL	07	2000	2002	2004D	S13	E24	.487	16413	9.6	4D	-B	*	C		84		DE
CULG	07	2034E	2034U	2047D	S14	E23	.484	16413	9.5	13D	1N	*	P	2034	380	4.2	
491 HOLL	07	2010	2011	2033	N21	E67	.930	16419	12.9	23	-N	3	C		15		ZX
492 RAMY	07	2016	2016	2036D	S15	E60	.885	16418	12.3	20D	-B	3	C		22		F ZX
	07	2038	2137	NO FLARE PATROL													
	07	2147	2230	NO FLARE PATROL													
493 MANI	07	2235E	2235U	2250D	N17	W75	.964	16398	2.3	15D	-F	2	C		20		ZX
GRP79494	08	0030	0032	0056	S14	E21	.459	16413	9.6	26	1B						F
PURP	08	0030	0032	0046	S15	E22	.480	16413	9.7	16	1B		C				
MANI	08	0045E	0045U	0110D	S14	E21	.459	16413	9.6	20D	-F	3	V		100	1.1	F

Hα SOLAR FLARES

NOVEMBER 1979

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX HEL. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
GRP79495	08	0114+3	0116+6	0152	N31	E71	.950	16419	13.4	38	1N						H
MANI	08	0114	0116	0145	N30	E69	.940	16419	13.2	31	1N	3	V		120	2.6	
PURP	08	0117	0122	0159	N32	E73	.960	16419	13.5	42	1B		C				H
GRP79496	08	0149	0206+5	0220	S14	E16	.403	16413	9.3	31	-N						E
PURP	08	0149	0206	0226	S16	E16	.426	16413	9.3	37	1N		C				
YUNN	08	0207E	0207	0220	S15	E18	.435	16413	9.4	130	1N		C		251	2.8	E
MANI	08	0207E	0208	0220D	S13	E16	.351	16413	9.3	130	-N	3	V		60	.6	
MITK	08	0208E	0211	0220	S13	E16	.391	16413	9.3	120	-N		C	0211			E?
497 PURP	08	0152	0206	0226	S17	E62	.903	16418	12.7	34	1N		C				ZX
496 YUNN	08	0234E	0234	0234D	S15	E15	.404	16413	9.2		-B		C		47	.5	ZX
GRP79499	08	0309	0315	0326	S19	E56	.862	16418	12.3	17	-N				40	.8	F
YUNN	08	0309	0315	0322	S21	E54	.851	16418	12.2	13	-N		C		47	.9	
MANI	08	0317E	0317U	0330D	S18	E58	.875	16418	12.5	130	-F	3	V		30	.5	F
GRP79500	08	0333+?	1337+?	0356	S14	E17	.413	16413	9.4	23	-N						EH
YUNN	08	0333	0340	0357	S15	E16	.426	16413	9.3	24	1B		C		361	4.0	TS
PURP	08	0334	0340	0355	S15	E18	.435	16413	9.5	21	1N		C				
MITK	08	0335	0337	0340	S13	E16	.391	16413	9.4	4	-N		C	0337			EHT
MANI	08	0340E	0340U	0357D	S14	E22	.471	16413	9.8	170	-F	3	V		15	.2	
GRP79501	08	0339+?	0340+4	0354	N21	E40	.676	16414	11.2	15	-N						
PURP	08	0339	0344	0357	N21	E39	.665	16414	11.1	18	-N		C				
MANI	08	0340E	0340U	0354	N22	E41	.692	16414	11.2	140	-F	3	V		20	.2	
YUNN	08	0342	0344	0350	N21	E40	.676	16414	11.2	8	-N		C		63	.8	
GRP79502	08	0419>9	0431+5	0440	S15	E15	.404	16413	9.3	21	-N						D
PURP	08	0419	0436	0436D	S15	E18	.435	16413	9.5	170	-N		P				
MITK	08	0430E	0431	0437	S13	E15	.380	16413	9.3	70	-N		C	0431			D?
YUNN	08	0430	0434	0442	S15	E14	.395	16413	9.2	19	1B		C		314	3.6	
GRP79503	08	0450	0459+1	0517	S18	E23	.520	16413	9.9	17	-F						
YUNN	08	0450	0500	0513	S19	E22	.520	16413	9.9	23	-F		C		31	.4	
PURP	08	0459E	0459	0508	S18	E25	.542	16413	10.1	10	-N		P				
504 YUNN	08	0510	0510	0518	S17	E51	.813	16418	12.0	10	-F		C		31	.5	ZX
505 YUNN	08	0534	0536	0542	N21	E40	.676	16414	11.2	8	-N		C		47	.6	ZX
506 YUNN	08	0544	0552	0607	S18	E57	.868	16418	12.5	23	-N		C		63	1.3	E ZX
507 YUNN	08	0615	0616	0619	S15	E15	.404	16413	9.4	4	-N		C		47	.5	ZX
GRP79508	08	0642+0	0642 1649	0652	S15	E15	.404	16413	9.4	10	-N						
PURP	08	0642	1649	0652	S15	E16	.414	16413	9.5	10	-N		C				
YUNN	08	0642E	0642	0652	S15	E14	.395	16413	9.3	100	-B		C		173	1.9	
GRP79509	08	0735+1	0740+6	0800	S15	E10	.360	16413	9.1	25	-F				90	1.0	E
BUCA	08	0735		0815	S15	E10	.360	16413	9.1	31	-N		C	0735	107	1.2	E
HTPR	08	0735	1746	0750	S15	E08	.346	16413	8.9	15	-F		C	0746	30	.3	E
YUNN	08	0736	1740	0756	S15	E18	.435	16413	9.7	20	-F		C		79	.9	
HTPR	08	0740	0750	0800	S14	E05	.315	16413	8.7	20	-F		C	0750	10	.1	
510 HTPR	08	0802	0803	0819	N22	W18	.428	16406	7.0	7	-N		C	0803	20	.2	ZX
GRP79511	08	0805+9	0813+1	0821	S14	E12	.363	16413	9.2	16	-B						EI
HTPR	08	0805	0814	0817	S14	E05	.315	16413	8.7	12	-B	*	C	0814	150	1.5	EI
KANZ	08	0809	0813	0817	S15	E13	.385	16413	9.3	8	-B	*					
ATHN	08	0811E	0822	1135	S15	E12	.377	16413	9.2	2040	1B	*		0822	229	2.5	
BUCA	08	0814		0824	S14	E14	.382	16413	9.4	10	1N	*	C	0815	322	3.6	
GRP79512	08	0826	0913+?	1139	S14	E14	.382	16413	9.4	193	2B				540	5.8	FIKZ
HTPR	08	0826	0920	1115	S14	E13	.372	16413	9.3	169	1B	*	C	0920	329	3.3	EFI
CATA	08	0830E	0913	1155	S13	E15	.380	16413	9.5	2050	2B	*	P	0913	618	6.9	Z
YUNN	08	0833E	0915	1025D	S14	E14	.382	16413	9.4	920	2B	*	C	0915	566	6.2	EFK
KANZ	08	0837		1139	S17	E12	.404	16413	9.7	182	2B	*					F
BUCA	08	0842		1040	S14	E18	.424	16413	9.7	820	2N	*	C	0914	644	7.4	
513 HTPR	08	0920	0922	0950	N27	E38	.684	16414	11.2	30	-F		C	0922	20	.3	ZX

Hα SOLAR FLARES

NOVEMBER 1979

OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IMPOR-TANCE	OBS.		MEASUREMENTS			REMARKS	
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONC	TYPE	TIME UT	MEAS. AREA Millionths of Disk	CORR. AREA Sq. Deg.		
GRP79514	08	1001+4	1007+3	1026	S18	E51	.815	16418	12.2	25	-N				80	1.4	E	
HTPR	08	1001	1007	1026	S17	E47	.775	16418	11.9	25	-F		C	1007	40	.6	E	
KANZ	08	1002		1018	S19	E55	.854	16418	12.5	16	-N	3						
CATA	08	1005	1011	1030	S17	E54	.840	16418	12.5	25	-B	2	C	1010	84	1.6		
ATHN	08	1009E	1010	1048	S22	E49	.812	16418	12.1	370	-B	1		1010	114	2.0		
GRP79515	08	1030+7	1041+2	1105	S22	W23	.561	16412	6.7	35	-N				70	.8	E	
HTPR	08	1035	1043	1115	S22	W26	.590	16412	6.5	35	-N		C	1043	60	.7	E	
KANZ	08	1037	1043	1105	S22	W23	.561	16412	6.7	28	-N	2						
ATHN	08	1040E	1041	1107	S21	W23	.551	16412	6.7	230	-B	1		1041	82	1.0		
516 HTPR	08	1109	1113	1125	S22	W27	.561	16412	6.7	16	-F		C	1113	20	.2		ZX
GRP79517	08	1115+1	1121+4	1138	S14	E07	.325	16413	9.0	22	1B				220	2.7	ELV	
TELV	08	1116	1121	1137	S15	E09	.353	16413	9.1	21	-B	*			98	1.0	LV	
KANZ	08	1115	1123	1139	S15	E08	.346	16413	9.1	23	1B	*						
HTPR	08	1117	1122	1135	S14	E06	.320	16413	8.9	18	1B	*	C	1122	220	2.2	E	
ATHN	08	1124E	1125	1145	S13	E07	.310	16413	9.0	210	1B	*		1125	262	2.8		
518 HUAN	08	1223E		1225D	S12	E13	.347	16413	9.5	20	-N	1	P	1223	25	.3	D	ZX
519 HTPR	08	1231	1232	1235	S14	E05	.315	16413	8.9	4	-B		C	1232	40	.4	E	ZX
520 HTPR	08	1255	1300	1310	S14	E08	.332	16413	9.1	15	-N		C	1300	10	.1		ZX
GRP79521	08	1323+2	1326+1	1335	S14	E09	.339	16413	9.2	12	-N							
KANZ	08	1323	1327	1334	S14	E11	.354	16413	9.4	11	-B	2						
HTPR	08	1325	1326	1335	S14	E08	.332	16413	9.2	10	-N		C	1326	20	.2		
522 ATHN	08	1349E	1350	14D0D	N20	E80	.983	16421	14.6	110	-B	1		1350	49	2.5		ZX
523 HTPR	08	1503	1504	1512	N23	E33	.606	16414	11.1	9	-F		C	1504	20	.2		ZX
524 HUAN	08	1539		1544D	S21	W27	.590	16412	6.6	6D	-N	1	P	1544	45	.6	E	ZX
GRP79525	08	1547	1555	1621	N32	E66	.926	16419	13.6	34	-N				45			
BIGE	08	1547	1555	1621	N32	E67	.931	16419	13.7	34	-N		C	1555	60			
HUAN	08	1548E		1554D	N32	E66	.926	16419	13.6	60	-N	2	P	1553	30			
526 HUAN	08	1710E		17130	S21	W29	.611	16412	6.5	30	-N	1	P	1712	45	.6	E	ZX
527 BIGB	08	1710	1712	1721	N11	W12	.242	16408	7.8	11	-F	*			30	.3		ZX
528 BIGB	08	1801	1804	1814	S13	E02	.289	16413	8.9	13	-F	1			50	.5		ZX
529 HUAN	08	1908		1911	S17	E43	.725	16415	12.8	3	-F	1	C	1911	40	.6		ZX
530 BIGB	08	1927	1929	1940	N23	E33	.606	16414	11.1	13	-N		C	1929	30	.4		ZX
531 BIGB	08	2030	2031	20400	S18	W14	.433	16410	7.8	10D	-F	1			37	.4		ZX
GRP79532	08	2033	2034	2045	S15	E13	.365	16413	9.8	12	-N				50	.5		
BIGB	08	2033	2034	2042	S17	E15	.429	16413	10.0	9	-N		C	2034	60	.6		
HUAN	08	2038E		20470	S14	E12	.363	16413	9.8	9D	-N	2	P	2038	40	.4		
GRP79533	08	2038+1	2041	2054	S11	W01	.254	16413	8.8	16	-N				40	.4		
HUAN	08	2038E		20470	S12	W01	.270	16413	8.8	9D	-N	2	P	2042	40	.4		
BIGB	08	2039	2041	2054	S11	W01	.254	16413	8.8	15	-N		C	2041	40	.4		
534 BIGB	08	2156	2159	2253	N28	E26	.573	16414	10.9	57	-N		C	2158	70	.8		ZX
535 BIGB	08	2302	2303	23060	N21	W24	.486	16406	7.2	60	-N	1			50	.5		ZX
536 BIGB	08	2331	2332	23590	S15	E47	.768	16418	12.5	280	-B		P	2332	80	1.2		ZX
GRP79537	08	2332+9	2333 2342	2358	S15	E01	.320	16413	9.1	26	-F						K	
BIGB	08	2332	2333	2358	S15	E00	.320	16413	9.0	26	-F	1			50	.5	K	
BIGB	08	2341	2342	2358	S15	E02	.322	16413	9.1	17	-N		C	2342	90	.9		
GRP79538	09	0001+1	00004+1	0041	S17	E44	.744	16418	12.3	40	-N							
YUNN	09	0001	0005	0035	S16	E43	.738	16418	12.2	34	-N		C		63	.9		
PURP	09	0002	0004	0047	S17	E45	.754	16418	12.4	45	1N		C					
539 YUNN	09	0035	0039	0110	S16	E08	.360	16413	9.6	25	-N		C		173	1.8		ZX
540 YUNN	09	0040	0043	0052	S21	W30	.620	16412	6.8	12	?N		C		161	2.0		ZX

IMP.1 NO : PALE PURP

Hα SOLAR FLARES

NOVEMBER 1979

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS	
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.		
541 YUNN	09	0105	0119	0150	S14	E07	.323	16413	9.6	45	-N		C		110	1.2	ET	ZX
GRP79542	09	0220>9	0225	0252	S16	00	.335	16413	9.1	32	1N							
			0234															
YUNN	09	0220	0225	0250	S16	W02	.336	16413	8.9	30	1B		C		204	2.3		
PURP	09	0237	0234	0254	S16	E01	.335	16413	9.2	17	1N		C					
GRP79543	09	0304+0	0306+0	0310	S15	00	.318	16413	9.1	14	1N						Z	
YUNN	09	0304	0306	0318	S15	W01	.319	16413	9.1	140	1N		C		290	3.1	Z	
PURP	09	0304	0308	0328	S15	E00	.335	16413	9.1	22	2N		C		642	6.8		
PURP	09	0321	0326	0358	S14	E09	.337	16413	9.8	37	-N		C					
GRP79544	09	0504+7	0513+4	0528	S22	E41	.738	16418	12.3	24	-N							
YUNN	09	0504	0513	0523	S17	E41	.712	16418	12.3	19	-N		C		110	1.6		
PURP	09	0511	0517	0533	S27	E42	.774	16418	12.4	22	1N		C					
545 PURP	09	0513E	0513	0527	S14	W02	.303	16413	9.1	140	-N		C					ZX
GRP79546	09	0546+2	0549+1	0558	S14	W02	.303	16417	9.1	12	1N							
YUNN	09	0546	0550	0555	S15	W03	.322	16413	9.0	9	1N		C		225	2.4		
PURP	09	0548	0549	0600	S14	W02	.303	16413	9.1	12	1N		C					
GRP79547	09	0600+1	0602+6	0629	S15	W03	.322	16413	9.8	29	1B				340	3.6	EJ	
ATHN	09	0600E	0602	06090	S15	W03	.322	16413	9.8	90	-B	1		0602	147	1.6		
YUNN	09	0600	0605	0621	S15	W03	.322	16413	9.0	21	1B		C		337	3.6		
PURP	09	0601	0608	0629	S14	W02	.303	16413	9.1	28	1B		C					
ABST	09	0601E	0606	06190	S14	W03	.306	16413	9.0	180	1N		P	0606	349	3.8	EJ	
TACH	09	0613E		0630	S15	W03	.322	16413	9.0	17D	-F		C	0613	124	1.4	E	
548 ABST	09	0604	0606	06190	N15	W71	.944	16402	3.9	150	-F		P	0606	87		D	ZX
GRP79549	09	0804+3	0813+4	0853	S16	E39	.685	16418	12.3	49	-N				130	1.8	E	
			0830															
ISTA	09	0804		0837	S16	E40	.696	16418	12.3	33	1N		P				D	
HTPR	09	0805	0830	0910	S15	E38	.669	16418	12.2	55	-F		C	0830	50	.6	E	
BUCA	09	0805		09000	S18	E40	.706	16418	12.3	550	-F		C	0822	107	1.6		
YUNN	09	0807	0813	0848	S17	E40	.701	16418	12.3	37	-N		C		129	1.8	E	
ABST	09	0808E	0813	08220	S17	E40	.701	16418	12.3	140	1N		P	0813	175	2.5	E	
ATHN	09	0814	0817	0956	S16	E36	.651	16418	12.6	102	-N	1		0817	99	1.3		
550 ABST	09	0808E	0814	08220	S21	W34	.661	16412	6.8	140	-F		P	0814	87	1.2	DJ	ZX
551 ABST	09	0811E	0814	08220	N30	E55	.850	16419	13.5	110	-F		P	0814	79	1.4	DJ	ZX
552 HTPR	09	0840	0847	0910	N30	E55	.850	16419	13.5	20	-F		C	0847	20	.3	E	ZX
GRP79553	09	0924+1	0925+1	0938	S18	E07	.385	16413	9.9	14	-N						E	
HTPR	09	0924	0925	0940	S18	E07	.385	16413	9.9	16	-N		C	0925	50	.5	E	
YUNN	09	0925	0926	0935	S19	E07	.385	16413	9.9	10	1N		C		189	2.2		
554 YUNN	09	0935	0937	0946	N28	E52	.821	16419	13.3	11	-N		C		31	.6		ZX
555 HTPR	09	0947	0950	0956	N16	W54	.814	16406	5.4	9	-N		C	0950	60	1.0	E	ZX
GRP79556	09	1010+3	1014	1114	S15	E36	.645	16418	12.1	64	-F						EI	
			1022															
HTPR	09	1010	1022	1110	S15	E37	.657	16418	12.2	60	-F		C	1022	50	.6	EI	
ATHN	09	1013	1014	1110	S16	E35	.639	16418	12.1	65	-N	1		1014	99	1.3		
GRP79557	09	1215	1234	1250	N24	W25	.524	16409	7.6	35	-F				100	1.2	E	
HTPR	09	1215	1234	1250	N24	W25	.524	16409	7.6	35	-F		C	1234	70	.8	E	
CATA	09	1240E	1249	12450	N24	W25	.524	16409	7.7	50	-N	1	P	1240	140	1.7		
GRP79558	09	1325E	1335	13400	N31	E51	.821	16419	13.4	15	-N						E	
HTPR	09	1325E		13400	N30	E55	.850	16419	13.7	150	-N		C	1328	50	.9	E	
HTPR	09	1332	1335	1339	N32	E47	.792	16419	13.1	7	-F		C	1335	10	.2		
GRP79559	09	1400+2	1405	1428	N27	E16	.469	16414	10.8	28	-N							
HTPR	09	1400E		1425	N27	E17	.478	16414	10.9	250	-N		C	1400	30	.3	B	
HOLL	09	1402	1405	1431	N28	E15	.474	16414	10.7	29	-N	3	C		81			
GRP79560	09	1417+1	1418+1	1432	N21	W31	.571	16406	7.3	15	-N				35	.4	E	
			1429															
HTPR	09	1417	1419	1430	N23	W30	.573	16406	7.3	13	-N		C	1419	20	.2	E	
HOLL	09	1418	1418	1426	N21	W31	.571	16406	7.3	8	-N	3	C		53			
HOLL	09	1428	1429	1434	N19	W34	.597	16406	7.1	6	-N	3	C		20			

Hα SOLAR FLARES

NOVEMBER 1979

OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IMPOR-TANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONO	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
561 HOLL	09	1438	1456	1476	N32	E47	.792	16419	13.1	18	-B	3	C		63		ZX
GRP79562	09	1440	1448	1457	S17	E05	.361	16413	10.0	17	-B				45	.5	
HOLL	09	1440	1448	1457	S17	E05	.361	16413	10.0	17	-B	3	C		58		
HTPR	09	1444E		1445D	S18	E05	.376	16413	10.0	10	-N		C	1445	30	.3	
	09	1502	1546	NO FLARE PATROL													
563 BIGB	09	1525	1628	1650	N20	W39	.661	16406	6.7	89D	-F	1			25	.3	ZX
564 BIGB	09	1752E	1752E	1757	S11	W07	.278	16413	9.2	50	-F	1					ZX
565 BIGB	09	1903	1906	1914	N12	W80	.983	16402	3.8	11	-N		C	1906	60		ZX
566 BIGB	09	1912	1913	1918	S16	E36	.651	16418	12.5	6	-N		C	1913	50	.6	ZX
GRP79567	09	1923+2	1931+1	2000	N33	E52	.836	16419	13.7	37	1B				200	3.7	FU
BIGB	09	1923	1932	2027	N33	E55	.858	16419	13.9	64	1B		C	1932	250	4.4	
BIGB	09	1923E		1951	N29	E51	.815	16419	13.6	28D	-N	1					
HOLL	09	1925	1931	19320	N33	E53	.843	16419	13.8	70	-B	3	C		152		U F
HOLL	09	1925	1931	2010	N37	E52	.836	16419	13.7	35	-B	3	C		152		U F
GRP79568	09	1926+0	1926+1	1931	S16	E33	.338	16413	10.0	5	-N						H
HOLL	09	1925	1925	1931	S15	E03	.322	16413	10.0	5	-N	3	C		95		H
BIGB	09	1926	1927	1930	S18	E33	.371	16413	10.0	4	-B		C	1927	40	.4	
GRP79569	09	1954+1	1956+2	2031	S19	W48	.791	16412	6.2	37	-N				90	1.5	
BIGB	09	1954	1958	2038	S19	W49	.801	16412	6.2	44	-B		C	1958	100	1.6	
HOLL	09	1955	1956	2023	S19	W48	.791	16412	6.2	28	-N	3	C		88		
570 BIGB	09	2019	2027	2058	N12	W80	.983	16402	3.8	39	-B		C	2023	50		ZX
GRP79571	09	2029	2045+8 2154	2325	S20	W58	.880	16401	5.5	176	-N						F
BIGB	09	2029	2053	2325	S20	W59	.887	16401	5.4	176	1B	*	C	2053	140	2.8	
HOLL	09	2035E	2045	20460	S20	W57	.872	16401	5.6	110	-F	*	C		52		F
HOLL	09	2142E	2154	22230	S22	W56	.869	16401	5.7	210	-F	*	C		50		F
GRP79572	09	2029+3	2035+2	2115	N31	E44	.762	16419	13.2	46	-B				60	.9	F
BIGB	09	2029	2035	2115	N30	E45	.767	16419	13.2	46	-B		C	2035	50	.7	
HOLL	09	2032	2037	20460	N33	E43	.763	16419	13.1	140	-B	3	C		74		F
573 BIGB	09	2125	2130	2154	N22	W29	.554	16409	7.7	29	-B		C	2130	30	.4	ZX
574 BIGB	09	2132	2133	2142	N15	E31	.539		12.2	10	-B		C	2133	30	.4	E ZX
GRP79575	09	2134+8	2149+2	2254	N17	E58	.852	16421	14.2	80	1B						F
BIGB	09	2134	2149	2254	N16	E60	.868	16421	14.4	80	1B		C	2149	140	2.8	
HOLL	09	2142	2151	21530	N18	E57	.844	16421	14.2	110	2N	3	C		454		F
GRP79576	09	2142+1	2143+0 2154+1	2213	S15	W10	.359	16413	9.2	21	-B				80	.9	E
BIGB	09	2142	2143	2145	S15	W10	.359	16413	9.2	7	-N		C	2143	30	.3	
HOLL	09	2143	2143	2151	S14	W03	.306	16413	9.7	8	-F	3	C		30		
HOLL	09	2143	2154	22230	S15	W10	.359	16413	9.2	200	-B	3	C		90		DE
BIGB	09	2154E	2155	2219	S16	W10	.373	16413	9.2	25D	-B		P	2155	80	.8	
577 BIGB	09	2229	2236	2248	N35	E46	.797	16419	13.4	19	-F		C	2236	70	1.0	ZX
578 BIGB	09	2259	2300	2310	S18	E00	.367	16413	10.0	11	-N		C	2300	10	.1	ZX
579 HOLL	09	2310	2313	2322	N32	E40	.732	16419	13.0	12	-F	2	C		25		ZX
580 BIGB	09	2312	2314	23180	S14	E10	.345	16417	10.7	40	-F				25	.3	ZX
581 HOLL	09	2323	2327	23420	S22	W42	.747	16412	6.8	190	-F	2	C		27		ZX
582 YUNN	10	0105	0112	0125	S15	E06	.332	16417	10.5	20	-N		C		47	.5	ZX
583 YUNN	10	0300	0303	0314	S14	W10	.343	16413	9.4	14	-N		C		63	.7	ZX
GRP79584	10	0348>9	0402 0410	0425	N25	E17	.455	16414	11.4	37	-N						
CULG	10	0348	0402U	04060	N26	E18	.476	16414	11.5	18D	-F	*	P	0402	90	1.0	
YUNN	10	0405	0410	0425	N24	E16	.434	16414	11.4	20	1N	*	C		204	2.3	
585 CULG	10	0353	0354	0358U	S15	E27	.537	16418	12.2	50	-F		P	0354	90	1.1	ZX

Hα SOLAR FLARES

NOVEMBER 1979

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS	
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX WEST. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND	TYPE	TIME UT	MEAS. AREA Millionths of Disk	CORR. AREA Sq. Deg.		
586 YUNN	10	0455	0457	0500	N24	W37	.658	16406	7.4	5	-B		C		142	1.9		ZX
587 YUNN	10	0501	0512	0533	S15	W59	.877	16412	5.8	32	1N		C		177	3.7		ZX
588 YUNN	10	0515	0517	0525	N10	E59	.856	16421	14.6	10	-N		C		31	.6		ZX
589 CULG	10	0531E	0541	0614U	N22	W38	.659	16406	7.4	330	-F		P	0541	79	.9		ZX
590 ABST	10	0603E	0606	0615D	S18	E30	.595	16418	12.5	120	-F		P	0606	157	2.0	EJ	ZX
591 ABST	10	0603E	0606	0615D	S16	W62	.901	16412	5.6	120	-F		P	0606	61		DJ	ZX
GRP79592	10	0616	0620 0631	0632	S19	W04	.371	16413	10.0	15	-N						FJ	
YUNN	10	0616	0620	0628	S18	W05	.375	16413	9.9	12	-N		C		63	.7		
ABST	10	0628E	0631	0635D	S18	W04	.371	16413	10.0	70	-F		P	0631	166	1.8	FJ	
GRP79593	10	0631+?	0641+4	0659	S15	W15	.402	16413	9.1	28	2B						FHIJKU	
CULG	10	0611	0641U	0747D	S16	W16	.42+	16413	9.1	960	2B	*	P	0641	800	8.8	FKIU	
ABST	10	0631E	0642	0716	S17	W17	.44?	16413	9.0	450	2B	*	P	0642	511	4.9	FJ	
YUNN	10	0633	0643	0655	S15	W16	.412	16413	9.1	22	2B	*	C		104	5.8	H	
TACH	10	0638	0644	0654	S15	W15	.402	16413	9.2	16	1B	*	C	0644	221	2.5	HUVZ	
MANI	10	0642E	0645	0650	S15	W13	.383	16413	9.3	AD	1B	*	V		200			
ABST	10	0642	0643	0647	S16	W06	.347	16413	9.8	F	-F	*	C	0643	87	1.0	D	
594 ABST	10	0632E	0654	0714	S17	W63	.909	16412	5.5	420	?F		P	0654	175		FJK	ZX
	IMP.1 NO : YUNN TACH CULG																	
GRP79595	10	0650+5	0657+3	0711	N22	E15	.400	16414	11.4	21	-N				78	.8	DJ	
CULG	10	0650	0700	0711	N23	E15	.412	16414	11.4	21	-F		C	0700	50	.5		
ABST	10	0654	0657	0729	N22	E15	.400	16414	11.4	35	-N		C	0657	96	1.1	DJ	
YUNN	10	0655	0657	0705	N22	E15	.400	16414	11.4	10	-B		C		94	1.0		
MANI	10	0657E	0657U	0702D	N23	E14	.403	16414	11.3	50	-F	2	C		40			
596 ABST	10	0659	0703	0714	N18	E57	.837	16421	14.6	15	?F		C	0703	175	3.3	EJ	ZX
	IMP.1 NO : YUNN TACH CULG																	
GRP79597	10	0702+5	0712+0	0751	S15	W10	.357	16413	9.5	49	-N				180	1.9	EJ	
ABST	10	0702	0710	0851	S15	W13	.383	16413	9.3	109	-N	*	C	0710	87	1.0	DJ	
ABST	10	0703	0712	0821	S15	W08	.343	16413	9.7	78	-N	*	C	0712	183	2.0	FJ	
BUCA	10	0705		0815	S15	W12	.374	16413	9.4	68	1F	*	C	0710	214	2.4	E	
YUNN	10	0707	0712	0736	S14	W10	.343	16413	9.5	29	1B	*	C		186	2.0		
ISTA	10	0710E		0735	S16	W15	.343	16413	9.9	250	-N	*	P				BE	
ISTA	10	0710E		0733	S15	W15	.402	16413	9.2	230	-N	*	P				BE	
598 ABST	10	0713	0720	0729	N23	W39	.675	16406	7.4	16	-F		C	0720	95	1.3	DJ	ZX
599 ABST	10	0744E	1752	0803	N19	W80	.984	16402	4.3	190	?F		P	0752	87		DG	ZX
	IMP.1 NO : YUNN																	
600 ABST	10	0807	0814	0831	N27	W36	.665	16406	7.6	24	-F		C	0814	87	1.2	EJ	ZX
601 YUNN	10	0828	0824	0830	S18	E28	.573	16418	12.4	10	-N		C		47	.6		ZX
602 ABST	10	0824	0829	0852	S17	E02	.351	16417	10.5	28	-F		C	0829	87	1.0	DJ	ZX
GRP79603	10	0906+3	0911	0920	N32	E40	.733	16419	13.4	14	-F						D	
ISTA	10	0905		0923	N33	E41	.747	16419	13.5	17	-F		P				D	
YUNN	10	0909	0911	0916	N32	E39	.724	16419	13.3	7	-F		C		31	.4		
GRP79604	10	0913+3	0920	0924	N22	W39	.671	16406	7.5	11	-F						E	
ISTA	10	0913		0923	N22	W40	.682	16406	7.4	10	-F		P				E	
YUNN	10	0918	0920	0925	N23	W39	.675	16406	7.5	9	-N		C		63	.8		
605 ATHN	10	1201	1205	1241	S15	E25	.522	16418	12.4	40	-B	1		1205	114	1.4		ZX
606 ATHN	10	1217	1220	1237	S15	W17	.422	16413	9.2	20	-B	1		1220	131	1.4		ZX
GRP79607	10	1307>9	1307 1321	1404	N16	E49	.763	16421	14.2	57	1B							
RAMY	10	1307E	1307U	1424	N18	E49	.767	16421	14.2	770	1B	3	C		394		FDE	
ATHN	10	1317	1321	1355	N16	E50	.774	16421	14.3	38	1B	1		1321	212	3.3		
HUAN	10	1350E		1410D	N19	E47	.740	16421	14.1	140	1N	1	P	1358	218	3.3	E	
	10	1404	1529	NO FLARE PATROL														

Hα SOLAR FLARES

NOVEMBER 1979

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX LONG. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONG.	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
GRP79608	10	1514>9	1528+2	1555	S16	W20	.465	16413	9.1	41	-B						
RAMY	10	1514	1528	1601	S17	W19	.466	16413	9.2	47	-B	*	C		185		FDE
BIGB	10	1524	1530	1549	S16	W21	.476	16413	9.1	25	-B	*	C	1530	80	.9	
609 RAMY	10	1518	1548	1556	N13	E51	.780	16421	14.5	41	-N	3	C		22		ZX
610 BIGB	10	1526	1527	1540	S25	E12	.511	16416	11.5	14	-B		C	1527	50	.5	ZX
611 RAMY	10	1549	1549	1609	N31	E34	.672	16419	13.2	20	-N	3	C		23		ZX
GRP79612	10	1550+6	1555 1606	1738D	S19	W68	.943	16412	5.6	78	1B						
BIGB	10	1550	1555	1738	S19	W70	.953	16412	5.4	78	-B		C	1555	80		
RAMY	10	1558	1606	1609D	S21	W67	.939	16412	5.6	19D	1B	3	C		125		FDE
HOLL	10	1556	1626	1803	S19	W68	.943	16412	5.6	127	1B	3	C		263		F
613 HOLL	10	1601	1607	1620	N18	W47	.746	16406	7.1	19	-F	3	C		32		ZX
614 HOLL	10	1624	1624	1643	N18	W48	.757	16406	7.1	19	-F	3	C		21		ZX
615 RAMY	10	1630	1655	1730	S14	W14	.379	16413	9.6	30	-F	3	C		34		ZX
616 HUAN	10	1659	1700	1701	S18	E13	.422	16418	11.7	2	-F	1	C	1700	20	.2	D ZX
617 HUAN	10	1702		17220	S24	W40	.736	16410	7.7	20D	-F	1	P	1708	20	.3	D ZX
618 HOLL	10	1716	1716	1726	S24	W51	.836	16412	6.9	10	-F	3	C		15		ZX
619 BIGB	10	1722	1724	1734	S19	W70	.953	16412	5.5	12	-N		C	1724	90		ZX
GRP79620	10	1751+2	1753 1805+0	1816	S20	W57	.872	16412	6.5	25	-N				60	1.2	
RAMY	10	1751	1753	1817	S19	W68	.943	16412	5.6	26	-N	3	C		41		
BIGB	10	1753	1805	1822	S18	W60	.890	16412	6.2	29	1N		C	1805	160	3.2	
HUAN	10	1803	1805	1811	S23	W52	.840	16412	6.9	8	-N	1	C	1805	60	1.1	
HOLL	10	1803	1805	1814	S22	W55	.861	16412	6.6	11	-N	3	C		61		
GRP79621	10	1815+0	1816+2	1837	N10	E49	.755	16421	14.4	22	-N				45	.7	
HOLL	10	1815	1818	1829	N11	E47	.733	16421	14.3	14	-N	3	C		33		
BIGB	10	1815	1816	1845	N10	E51	.777	16421	14.6	30	-N		C	1816	60	1.0	
GRP79622	10	1827+4	1834+0	1902	S17	E22	.497	16418	12.4	35	-F				80	.9	E
HOLL	10	1827	1834	1901	S14	E18	.422	16418	12.1	34	-N	*	C		76		
HUAN	10	1830		18450	S17	E22	.497	16418	12.4	15D	-F	*	P	1834	110	1.3	E
BIGB	10	1831	1834	1903	S17	E25	.531	16418	12.6	32	-F	*	C	1834	30	.3	
GRP79623	10	1828+2	1832+1 1843	1853	S17	W20	.476	16413	9.3	25	-B						E
HUAN	10	1828	1832	18450	S17	W23	.508	16413	9.0	17D	-N	2	P	1832	150	1.8	E
RAMY	10	1830	1832	1853	S18	W20	.467	16413	9.3	23	-B	3	C		173		FDE
HOLL	10	1830	1832	1846	S17	W25	.531	16413	8.9	16	1B	3	C		243		
BIGB	10	1830	1833	1858	S16	W22	.485	16413	9.1	28	-B		C	1833	50	.6	
RAMY	10	1830	1832	18340	S14	W15	.389	16413	9.6	40	-B	3	C		173		FDE
BIGB	10	1842	1843	1848	S19	W11	.407	16413	10.0	6	-F		C	1843	30	.3	
GRP79624	10	1828+3	1841	1925	S20	W59	.887	16412	6.3	57	-N						
HUAN	10	1828		18450	S23	W58	.886	16412	6.4	17D	-F	*	P				
BIGB	10	1831	1841	1925	S18	W60	.893	16412	6.3	54	1B	*	C	1841	140	2.8	
625 BIGB	10	1912	1923	1934	N11	E51	.778	16421	14.6	22	-N		C	1923	30	.5	ZX
626 BIGB	10	1940	1942	1953	N23	E41	.697	16421	13.9	13	-N		C	1942	30	.4	ZX
627 HUAN	10	1941		1945	N22	W42	.704	16409	7.7	4	-F	1	C				ZX
GRP79628	10	2007+3	2011	2019	N22	E01	.319	16414	10.9	12	-F						E
BIGB	10	2007	2011	2023	N19	E02	.254	16414	11.0	16	-F		C	2011	40	.4	
HUAN	10	2010		2014	N27	E01	.400	16414	10.9	4	-F	1	C				E
629 BIGB	10	2022	2024	2040	S19	W57	.867	16412	6.6	18	-B		C	2024	40	.8	ZX
GRP79630	10	2023+6	2026+6	2193	N22	E01	.319	16414	10.9	40	-F				50	.5	
BIGB	10	2023	2026	21070	N27	E01	.400	16414	10.9	44D	-F	1			50	.5	
BIGB	10	2029	2032	2058	N18	E02	.254	16414	11.0	29	-N	*	C	2032	60	.6	

Hα SOLAR FLARES

NOVEMBER 1979

OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IMPOR-TANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONF.	TYPE	TIME UT	MEAS. AREA Mill of Disk	CORR AREA Sq. Deg.	
GRP79631	10	2041+1	2056+5 2131+4	2222	S16	E16	.424	16418	12.1	101	-N				140	1.5	K
BIGB	10	2041	2042	2057	S18	E11	.407	16418	11.7	16	-N	1			25	.3	
HOLL	10	2042	2131	2232	S14	E16	.400	16418	12.1	110	-B	3	C		182		DE
BIGB	10	2048	2135	2217	S14	E20	.445	16418	12.4	79	-N	1			150	1.6	FK
BIGB	10	2052	2056	2126	S15	E18	.433	16418	12.2	34	-N		C	2056	60	.7	
BIGB	10	2058	2101	21310	S18	E11	.407	16418	11.7	30	-N	1			37	.4	
CULG	10	2115E	2141	2240U	S17	E20	.476	16418	12.4	85D	1N		P	2141	+20	4.6	
BIGB	10	2129	2132	2227	S15	E18	.433	16418	12.2	58	-B		C	2132	100	1.1	
CULG	10	2150	2152	2156	S18	E10	.400	16418	11.7	6	-N		C	2152	90	1.0	
632 BIGB	10	2058	2101	2109	S18	W12	.414	16413	10.0	11	-N	1			12	.1	ZX
633 BIGB	10	2100	2105	2118	S24	W60	.902	16412	6.4	18	-B		C	2105	60	1.2	ZX
634 BIGB	10	2113	2115	21350	S18	W12	.414	16413	10.0	22D	-N	1			33	.3	ZX
GRP79635	10	2145+1	2146+1	2151	S14	W21	.457	16413	9.3	6	-N				30	.3	
BIGB	10	2145	2147	2150	S14	W21	.457	16413	9.3	5	-N		C	2147	20	.2	
HOLL	10	2146	2146	2151	S14	W23	.480	16413	9.2	5	-N	3	C		34		
BIGB	10	2146	2147	2215D	S16	W13	.396	16413	9.9	29D	-N	1			25	.3	
GRP79636	10	2146+2	2148+1	2205	N18	W55	.826	16406	6.8	19	-F						
CULG	10	2146	2148	2207	N19	W55	.828	16406	6.8	21	1F		C	2148	160	2.9	
BIGB	10	2148	2149	2205	N18	W55	.826	16406	6.8	17	-N		C	2149	70	.8	
HOLL	10	2148	2148	2159	N17	W58	.852	16406	6.6	11	-F	3	C		17		
GRP79637	10	2147+4	2152+0	2202	N09	E49	.755	16421	14.6	15	-N						
CULG	10	2147	2152	2202	N09	E49	.755	16421	14.6	15	1N	*	C	2152	150	2.7	
BIGB	10	2151	2152	2201	N09	E49	.755	16421	14.6	10	-N	*	C	2152	60	.9	
638 CULG	10	2148	2153U	2216U	N32	E34	.680	16419	13.5	28D	-F		C	2153	60	.8	ZX
639 BIGB	10	2156	2157	2204	S24	W60	.902	16412	6.4	8	-B		C	2157	20	.4	ZX
640 BIGB	10	2158	2158	2202	S11	W23	.455	16413	9.2	4	-F	*			15	.2	ZX
GRP79641	10	2205+3	2207+4	2228	S18	W70	.952	16412	5.7	15	1N				110		
CULG	10	2205	2208	2228	S16	W78	.958	16412	5.7	15	1N		C	2208	140		
HOLL	10	2205	2207	2216	S20	W76	.978	16412	5.2	11	-N	3	C				
BIGB	10	2208	2211	2223	S18	W70	.952	16412	5.7	15	-B		C	2211	90		
642 CULG	10	2250	2252	2302U	N25	E09	.395	16414	11.6	12D	-F		C	2252	30	.3	ZX
643 CULG	10	2259	2302U	2317U	S15	W26	.525	16413	9.8	8D	-F		P	2302	40	.5	ZX
644 BIGB	10	2300	2302	2311	S18	E09	.394	16418	11.6	11	-F	1			25	.3	ZX
645 BIGB	10	2304	2306	2323	N31	E31	.645	16419	13.3	19	-N		C	2306	20	.2	ZX
646 HOLL	10	2321	2323	2336	S15	E15	.402	16418	12.1	15	-N	3	C		60		ZX
GRP79647	10	2323+5	2325+5	2339	S13	W24	.484	16413	9.2	16	-N						FK
BIGB	10	2323	2325	2339	S13	W23	.472	16413	9.2	16	-N		C	2325	30	.3	
CULG	10	2327	2328	2355	S13	W24	.484	16413	9.2	28	-F		C	2328	180	2.0	FK
HOLL	10	2328	2330	2338	S14	W24	.493	16413	9.2	10	-B	3	C		84		
648 CULG	10	2337	2343	2355U	S18	E09	.394	16418	11.7	18D	-F		C	2343	50	.6	ZX
GRP79649	10	2340+1	2341+3	2356	S15	W22	.478	16413	9.3	16	-N				35	.4	
BIGB	10	2340	2341	2356	S16	W25	.522	16413	9.1	16	-B	*	C	2341	40	.5	
HOLL	10	2341	2344	2344D	S15	W20	.455	16413	9.5	3D	-N	*	C		29		
650 YUNN	11	0059	0100	0115	S18	E06	.377	16418	11.5	6	-F		C		31	.3	ZX
651 YUNN	11	0105	0106	0113	N31	E32	.655	16419	13.4	8	-F		C		31	.4	ZX
652 YUNN	11	0126	0131	0200	S16	W66	.927	16412	6.1	34	-N		C		64		ZX
GRP79653	11	0213+2	0218+6	0243	S15	E15	.400	16418	12.2	30	-N				120	1.3	E
VORO	11	0213	0218	0238D	S16	E17	.432	16418	12.4	25D	-B		C	0218	134	1.5	E
YUNN	11	0215	0224	0243	S15	E13	.381	16418	12.1	28	-N		C		113	1.2	
654 YUNN	11	0250	0253	0330	S22	W43	.755	16410	7.9	10	-N		C		63	.9	ZX
655 YUNN	11	0403	0404	0433	S23	W45	.779	16410	7.8	30	-F		C		94	1.4	ZX

Hα SOLAR FLARES

NOVEMBER 1979

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS	
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.		
656 YUNN	11	0404	0406	0420	S16	W70	.950	16412	5.9	16	-F		C		31			ZX
657 YUNN	11	0415E	0416	0420	S17	E10	.384	16418	11.9	40	-N		C		173	1.9		ZX
658 YUNN	11	0423	0426	0429	N22	W53	.815	16406	7.2	6	-N		C		47	.8		ZX
659 YUNN	11	0423	0426	0429	N31	E29	.628	16419	13.4	6	-N		C		47	.6		ZX
660 YUNN	11	0442	0448	0458	S15	E12	.372	16418	12.1	16	-F		C		79	.8		ZX
661 YUNN	11	0534	0536	0548	N24	W51	.802	16406	7.4	6	-N		C		63	1.0		ZX
GRP79662	11	0603+2	0608+9	0652	S17	W68	.940	16412	6.2	49	1N				150		F	
YUNN	11	0603	0613	0654	S16	W67	.933	16412	6.2	51	1B		C		110			
ABST	11	0603	0609	0716	S17	W70	.951	16412	6.0	73	2N		C	0609	314		F	
HITK	11	0605	0608	06330	S17	W67	.934	16412	6.2	280	1N		C	0608	130		F	
ATHN	11	0608E	0609	0632	S17	W72	.974	16412	5.9	240	1B	1		0609	171	5.4		
CULG	11	0609E	0617	07110	S17	W69	.946	16412	6.1	620	2N		P	0617	200			
ISTA	11	0615E		0648	S17	W66	.929	16412	6.3	330	-N		P				BD	
663 ABST	11	0612	0618	0653	N34	E39	.737	16419	14.2	41	-F		C	0618	87	1.3	DJ	ZX
GRP79664	11	0620+2	0627	0737	S16	E13	.394	16418	12.2	47	-F						J	
			0635															
ABST	11	0620	0627	0732	S17	E14	.416	16418	12.3	72	1F		C	0627	271	3.8	FJ	
YUNN	11	0622	0635	0707	S16	E11	.378	16418	12.1	45	-N		C		142	1.5		
ISTA	11	0635		0702	S16	E13	.394	16418	12.2	27	-F		P				E	
GRP79665	11	0639>9	0650	0709	N28	W03	.420	16414	11.1	30	-F				110	1.2		
			0656+1															
CULG	11	0639	06570	07110	N28	W03	.420	16414	11.1	320	-F		P	0657	110	1.2		
ABST	11	0640	0650	0743	N27	W02	.403	16414	11.1	63	1N		C	0650	210	2.4	F	
YUNN	11	0648	0656	0717	N29	W03	.436	16414	11.1	19	-N		C		110	1.2		
ISTA	11	0655		0715	N29	W03	.420	16414	11.1	19	-F		P				D	
666 ABST	11	0655	0700	0715	N09	W90	1.000	16402	4.5	20	?F		C	0700	87		AD	ZX
	IMP.1 NO : YUNN CULG																	
GRP79667	11	0727	0735	0744	S16	W28	.556	16413	9.2	17	-F						EJ	
ISTA	11	0727		0740	S16	W27	.544	16413	9.3	13	-F		P				E	
ABST	11	0730E	0735	0748	S16	W29	.568	16413	9.1	180	-N		P	0735	140	1.7	EJ	
GRP79668	11	0745+1	0748+1	0802	S16	E09	.363	16418	12.0	17	-N				170	1.8	EJ	
ABST	11	0745	0748	0850	S15	E10	.356	16418	12.1	65	1N		C	0748	253	2.8	EJ	
ISTA	11	0745	0748	0756	S15	E10	.370	16418	12.1	11	-N		P				E	
YUNN	11	0746	0749	0801	S17	E08	.372	16418	11.9	15	-B		C		173	1.8		
ATHN	11	0748E	0749	0812	S18	E08	.387	16418	11.9	140	-B	1		0749	49	.5		
669 ABST	11	0750	0755	0803	S23	W71	.961	16412	6.0	13	?F		C	0755	79		D	ZX
	IMP.1 NO : YUNN																	
670 ABST	11	0841	0844	0847	S21	W75	.975	16412	5.7	6	?F		C	0844	87		D	ZX
	IMP.1 NO : YUNN CATA																	
GRP79671	11	0856+3	0859+1	0913	N22	W55	.833	16406	7.2	17	1N				210	3.9	FJ	
ABST	11	0856	0859	09130	N22	W55	.833	16406	7.2	170	-N		P	0859	87	1.6	FJ	
YUNN	11	0858	0900	0903	N24	W51	.802	16406	7.5	5	1N		C		209	3.6		
BUCA	11	0859		09260	N22	W56	.842	16406	7.2	270	1N		C	0902	214	4.1		
672 ATHN	11	0901E	0902	09150	N15	E45	.717	16421	14.8	140	-B	1		0902	147	2.1		ZX
GRP79673	11	0918+1	0920	0930	N27	W04	.406	16414	11.1	12	-F				130	1.4		
YUNN	11	0918	0920	0930	N28	W05	.425	16414	11.0	12	-N		C		157	1.7		
EUCA	11	0919		09260	N27	W04	.406	16414	11.1	70	-F		C	0922	197	1.2		
674 YUNN	11	0944	0946	0959	N30	E27	.601	16419	13.4	15	-N		C		79	1.0		ZX
675 YUNN	11	0959E	0959	10100	S22	W68	.946	16412	6.3	10	-N		P		47			ZX
676 TELV	11	1246	1248	1306	S12	W23	.462	16413	9.8	20	-B	3			98	1.1	UW	ZX
677 RAMY	11	1250E	1255	1307	N12	E37	.611	16421	14.3	170	-B	3	C				FDE	ZX

Hα SOLAR FLARES

NOVEMBER 1979

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS	
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMR DAY	MIN.		CONF	TYPE	TIME UT	MEAS. AREA Mill of Disk	CORR AREA Sq. Deg.		
GRP79678	11	1300+2	1301+6	1337	S17	E04	.354	16418	11.8	37	-B						E	
ATHN	11	1300E	1301	13080	S16	EC2	.333	16418	11.7	80	-B	1		1301	21	.2		
TELV	11	1302	1307	13370	S18	E12	.413	16418	12.4	350	1B	1			214	2.2		
HUAN	11	1306E		13220	S16	EC7	.351	16418	12.1	160	-N	2	P	1306	60	.6	E	
HUAN	11	1330E		1337	S19	E01	.380	15418	11.6	70	-N	2	P	1330	20	.2	D	
679 HUAN	11	1339		13450	S25	W52	.846	16410	7.7	60	-N	1	P	1340	20	.4	D	ZX
	11	1400	1406	NO FLARE PATROL														
680 HOLL	11	1443	1443	1447	S15	E06	.330	16418	12.1	4	-F	3	C		21			ZX
681 HOLL	11	1458	1458	1512	S26	W55	.872	16412	7.5	14	-F	1	C		26			ZX
682 HOLL	11	1505	1506	1511	N17	E30	.537	16421	13.9	6	-B	3	C		104			ZX
683 HOLL	11	1510	1517	1521	S19	W24	.537	16413	9.8	11	-N	1	C		76			ZX
GRP79684	11	1517	1604	1629	S24	W52	.843	16410	7.7	72	-N							
HOLL	11	1517	1604	1635	S25	W51	.839	16410	7.8	78	-N	1	C		70			
HUAN	11	1533E		1622	S24	W54	.859	16410	7.6	490	-N	1	P	1612	40	.8		
GRP79685	11	1538+5	1541	1549	S15	E07	.335	16418	12.2	11	-F							
HOLL	11	1538	1541	1552	S16	E07	.351	16418	12.2	14	-N	3	C		62			
HUAN	11	1543		1546	S15	E07	.335	16418	12.2	3	-F	1	C					
GRP79686	11	1607+3	1613+3	1649	N17	W03	.893	16406	6.9	42	-B				50	1.1	E	
HOLL	11	1607	1613	1649	N15	W04	.899	16406	6.9	42	-B	3	C		125		DE	
BIGB	11	1609E	1616	1655D	N18	W00	.870	16406	7.2	460	-B		P	1616	50	1.0		
HUAN	11	1610		1647	N17	W03	.893	16406	6.9	37	-N	1	C	1615	50	1.1	E	
687 HUAN	11	1615	1616	1629	S17	W16	.434	16417	10.5	5	-F	1	C	1616	25	.3		ZX
688 HUAN	11	1634	1635	1636	S17	E05	.357	16418	12.1	2	-F	1	C	1635	40	.4		ZX
GRP79689	11	1648+3	1650+3	1723	S16	E05	.341	16418	12.1	35	-B						E	
HUAN	11	1648	1652	1721	S16	E05	.341	16418	12.1	33	-N	2	C	1652	160	1.8	E	
HOLL	11	1648	1659	1723	S17	E04	.354	16418	12.8	35	1B	3	C		262		DE	
BIGB	11	1651	1653	1730	S16	E05	.341	16418	12.1	39	-B		C	1653	70	.7		
GRP79690	11	1728+3	1731+2	1742	S15	E09	.348	16418	12.4	14	-N				80	.9	EW	
HOLL	11	1728	1731	1744	S15	E08	.342	16418	12.3	16	-B	*	C		119			
BIGB	11	1730E	1731U	1741	S15	E10	.356	16418	12.5	110	-F	1			75	.7	W	
RAMY	11	1730E	1731	1742	S15	E08	.342	16418	12.3	120	-N	*	C		80			
HUAN	11	1731	1733	1736	S15	E11	.364	16418	12.6	5	-N	*	C	1733	40	.4	E	
691 HOLL	11	1805	1807	1813	S24	W68	.948	15412	6.7	8	-N	3	C		25			ZX
GRP79692	11	1903	1904	1919	S18	W36	.619	16413	9.1	16	-N						W	
BIGB	11	1903	1904	1919	S08	W36	.611	16413	9.1	16	-N	1			60	.7	W	
HUAN	11	1909E		19?9D	S12	W36	.628	16413	9.1	10	-F	1	P					
GRP79693	11	1930+1	1931+3	1947	S15	E05	.325	16418	12.2	17	-N				60	.6		
BIGB	11	1930	1931	1950	S15	E05	.325	16418	12.2	20	-N	1			60	.6		
HOLL	11	1931	1934	1943	S16	E05	.341	16418	12.2	12	-N	3	C		70			
694 BIGB	11	2115	2117	2134	S15	E05	.325	16418	12.3	19	-B		C	2117	50	.5		ZX
695 BIGB	11	2140	2142	2157	N31	E22	.568	16419	13.6	17	-N		C	2142	20	.2		ZX
696 BIGB	11	2141	2144	2158	S17	W89	1.000	16412	5.2	9	-B		C	2144	30			ZX
GRP79697	11	2157+4	2201+1	2228	S18	W28	.572	16413	9.8	23	-B				100	1.2		
CULG	11	2157	2201	2228	S16	W28	.556	16413	9.8	31	-N		C	2201	110	1.3		
BIGB	11	2201	2202	2228	S18	W27	.561	16413	9.9	19	-B		C	2202	40	.5		
HOLL	11	2201	2202	2213	S19	W28	.580	16413	9.8	12	-B	3	C		95		DE	
698 CULG	11	2201	2211	2236	N23	E53	.818	16425	15.9	35	-F		C	2211	60	1.1		ZX
GRP79699	11	2223>9	2230+3 2250+2	2312	N13	E37	.613	16421	14.7	49	-N						FW	
CULG	11	2223	2233	23?3D	N14	E37	.616	16421	14.7	600	1N		P	2233	320	4.0	F	
BIGB	11	2225	2230	2240	N17	E38	.639	16421	14.8	15	-N	1			100	1.3	FW	
BIGB	11	2233	2252	2316D	N12	E39	.637	16421	14.9	430	-B		P	2252	40	.5		
HOLL	11	2237	2250	2317	N12	E30	.514	16421	14.2	30	-N	3	C		34			

Hα SOLAR FLARES

NOVEMBER 1979

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS	
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.		
GRP79700	11	2244+2	2259 2307	0010D	N31	E20	.552	16419	13.4	76	-N							
CULG	11	2244U	2315	2323D	N31	E20	.552	16419	13.4	190	1N		P	2315	180	2.1		
BIGB	11	2246	2259	0010D	N29	E20	.529	16419	13.4	74D	-N	1			100	1.0		
BIGB	11	2256	2307	2316D	N31	E20	.552	16419	13.5	20D	-B		P	2307	40	.4		
GRP79701	11	224?+1	2249+0	2305	S14	E02	.300	16418	12.1	18	-N				45	.5		
BIGB	11	2247	2249	2304	S15	E02	.316	16418	12.1	17	-N		C	2249	40	.4		
HOLL	11	2248	2249	2305	S14	E02	.300	16418	12.1	1?	-N	3	C		49			
GRP79702	11	2250+0	2250+5	2258	S23	W72	.965	16412	6.6	8	-F				45			
HOLL	11	2250	2255	2258	S24	W?0	.958	16412	6.7	8	-F	3	C		25			
CULG	11	2258	2250U	2255D	S22	W75	.976	16412	6.3	5D	-F		P	2250	60			
703 CULG	11 IMP.1 NO : HOLL	2309E	2316U	2323D	S15	E03	.318	16418	12.2	14D	?N		P	2316	300	3.3		ZX
704 VORO	12	0015	0019	0028	N29	E15	.492	16419	13.1	1?	1F		C	0019	340	4.0	J	ZX
GRP79705	12	0059	0109	0145	S14	E02	.298	16418	12.2	46	1N				390	4.1		
VORO	12	0059	0109	0143	S14	E03	.300	16418	12.?	44	1N		C	0109	439	4.?	E	
MITK	12	010?E		0147	S15	E02	.314	16418	12.2	42D	1N		C	0110	340	3.7	F	
GRP79706	12	0114	0115+5	0129	N31	E17	.531	16419	13.3	25	-B						J	
VORO	12	0114	0120	0139	N30	E16	.512	16419	13.3	25	-B		C	0120	161	2.0	EJ	
MANI	12	0115E	0115U	0132D	N32	E18	.550	16419	13.4	17D	1N	3	V		350		F	
GRP79707	12	0119+?	0128+1	0144	S17	W28	.563	16413	10.0	26	-B						H	
MANI	12	0118	0128	0132D	S16	W28	.555	16413	10.0	14D	-B	3	V		100	1.2		
VORO	12	0124	0129	0143	S17	W28	.563	16413	10.0	19	1B		C	0129	332	4.1	DH	
MITK	12	0125	0128	0144	S17	W29	.574	16413	9.9	19	-N		C	0128			EH	
708 VORO	12	0156E		0159	S18	W70	.952	16412	6.8	3D	-N		C	0156	54		D	ZX
709 CULG	12 IMP.1 NO : PURP	0244E	0247U	0347 VORO	N20	E50	.783	16425	15.9	63D	?F		P	0247	220	3.5	F	ZX
710 CULG	12 IMP.1 NO : PURP	0302J	0338	0424	N03	E33	.544	16421	14.6	82D	?F		C	0338	180	2.2	L	ZX
711 YUNN	12	0510	0513	0530	N09	E34	.563	16421	14.8	20	-N		C		79	.9		ZX
712 YUNN	12	0516	0519	0532	S15	E02	.314	16418	12.4	16	-N		C		31	.3		ZX
713 YUNN	12	0532E	0?32	0540	N25	W13	.425	16414	11.3	8D	-N		C		177	1.9		ZX
714 YUNN	12	0623	0626	0640	N29	E15	.492	16419	13.4	1?	-N		C		79	.9		ZX
715 ISTA	12	0800		0805	S16	W14	.402	16418	11.3	5	-F		P				D	ZX
GRP79716	12	0805+5	0816+2	0838	S15	W02	.314	16418	12.2	33	-N						EI	
HTPP	12	0805	0816	0845	S15	W02	.314	16418	12.2	40	-N		C	0816	68	.6	EI	
TELV	12	0806	0817	0910	S16	W03	.333	16418	12.1	64	-B	?			147	1.5	E	
YUNN	12	0807	0817	0835D	S16	W04	.336	16418	12.0	28D	1B		C		236	2.5		
KANZ	12	0810	0818	0835	S1?	W02	.314	16418	12.2	25	-N	1						
ISTA	12	0810	0817	0828	S15	E01	.313	16418	12.4	18	1N		P				F	
GRP79717	12	0824+0	0828	0835	S12	W38	.652	16413	9.5	11	-N						F	
YUNN	12	0824	0828	0835	S11	W39	.660	16413	9.4	11	-N		C		47	.6		
ISTA	12	0824		0830D	S13	W38	.657	16413	9.5	6D	-N		P				F	
GRP79718	12	0845	0852+9	0910	N19	E13	.346	16421	13.?	25	-N						EGL	
HTPP	12	0845	0852	0910	N20	E13	.359	16421	13.3	25	-N		C	0852	40	.4	E	
ABST	12	0853E	0856	0901D	N19	E11	.327	16421	13.2	8D	-N		P	0856	131	1.4	E	
ABST	12	0853E	0856	0901D	N18	E14	.345	16421	13.4	8D	1F		P	0856	288	?.2	F	
KANZ	12	0900E		0917	N19	E12	.336	16421	13.3	17D	-N	2					GL	
YUNN	12	0900E	0901	0910	N18	E13	.334	16421	13.4	10D	-N		C		177	1.9	G	
GRP79719	12	0905+4	0910+0	0936	N25	W69	.937	16406	7.2	30	?N						A	
KANZ	12 IMP.S I49.2	0906	0910	0936	N26	W69	.938	16406	7.2	30	?N	1					A	
CATA	12	0910	0910	0930D	N24	W70	.942	16406	7.1	20D	2N	1	P	0910	252			
GRP79720	12	0928+6	0937+?	095?	N29	E06	.445	16419	12.8	27	-N						E	
KANZ	12	0928	0937	1?07	N29	E06	.445	16419	12.8	39	-N	2						
YUNN	12	0930	0940	0950	N28	E04	.424	16419	12.7	20	-N		C		129	1.4	E	
HTPR	12	0934	0938	0955	N31	E06	.475	16419	12.8	21	-N		C	0938	50	.6	E	

Hα SOLAR FLARES

NOVEMBER 1979

OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IMPOR-TANCE	OBS.		MEASUREMENTS			REMARKS	
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX LONG. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP DAY	MIN.		CONG.	TYPE	TIME UT	MEAS. AREA Mill of Disk	CORR AREA Sq. Deg.		
GRP79721	12	0947+3	0951+4	1011	S15	W06	.328	16418	12.0	24	-N				45	.5		
HTPR	12	0947	0951	1010	S14	W07	.318	16418	11.9	23	-F		C	0951	30	.3		
KANZ	12	0949	1953	1011	S15	W06	.328	16418	12.0	22	-F	2						
CATA	12	0950	0955	1010D	S15	W06	.328	16418	12.0	20D	-B	2	P	0955	56	.6		
722 HTPR	12	1015	1015	1022	S21	W07	.425	16418	11.9	7	-F		C	1015	10	.1		ZX
723 KANZ	12	1038	1058	1139	N27	W14	.459	16414	11.4	39	-N	2					F	ZX
GRP79724	12	1105+0	1112+2 1124	1142	S16	W03	.333	16418	12.2	37	-N						E	
KANZ	12	1105	1114	1138	S16	W02	.331	16418	12.3	33	-N	2					E	
MONT	12	1105	1112	1114	S16	W05	.339	16418	12.1	9	-N		C	1112	60		E	
MONT	12	1118	1124	1145D	S16	W05	.339	16418	12.1	27D	-N		C	1124	100		E	
GRP79725	12	1141+2	1143+1	1149	N11	E31	.525	16421	14.8	8	-F				35	.4	D	
HTPR	12	1141	1143	1148	N12	E28	.285	16421	14.6	7	-F		C	1143	20	.2		
MONT	12	1141	1144	1145D	N11	E32	.540	16421	14.9	4D	-F		C	1144	50		D	
KANZ	12	1143	1143	1150	N10	E31	.523	16421	14.8	7	-N	2						
GRP79726	12	1300+3	1310	1337	S21	W67	1.000	16412	6.0	37	-F						D	
KANZ	12	1303	1319	1347	S20	W85	.998	16412	6.2	47	-N	2						
HUAN	12	1303		1327	S22	W98	1.000	16412	5.8	24	-F	1	C	1310	25		D	
GRP79727	12	1312+3	1318+1	1322	N20	W69	.935	16405	7.4	10	-N				30			
HTPR	12	1312		1322D	N20	W78	.940	16406	7.3	10D	-F		C	1319	30	.7		
HUAN	12	1314	1319	1328	N20	W68	.929	16406	7.5	6	-N	1	C	1319	30			
KANZ	12	1315	1318	1329	N23	W65	.936	16406	7.4	14	-N	2						
728 HUAN	12	1335	1335	1338	S15	W34	.626	16413	10.0	3	-N	1	C	1335	20	.3	D	ZX
729 HUAN	12	1402	1404	1405	S20	W98	1.000	16412	5.8	3	-F	1	C	1404	15		D	ZX
730 KANZ	12	1402	1407	1421	N32	E12	.514	16419	13.5	19	-F	1						ZX
731 HOLL	12	1543	1544	1551	S28	W74	.976	16412	7.1	8	-N	3	C					ZX
GRP79732	12	1657+3	1658+3	1724	S17	W03	.349	16418	12.5	27	-F				40	.4	E	
BIGB	12	1657	1658	1739	S18	W02	.363	16418	12.6	42	-F	1			25	.3		
BIGB	12	1658	1659	1727	S18	W05	.371	16418	12.3	29	-F	1			20	.2		
HUAN	12	1659		1724	S17	W01	.346	16418	12.6	25	-F	1	C	1700	30	.3	E	
HOLL	12	1700	1701	1721	S17	W03	.349	16418	12.5	21	-N	3	C		37			
733 BIGB	12	1728	1729	1737	N29	E08	.452	16419	13.3	9	-N	1			33	.3		ZX
734 BIGB	12	1731	1732	1733	S14	W15	.387	16418	11.6	2	-F	1			30	.3		ZX
GRP79735	12	1734+1	1735	1737	S14	W04	.304	16418	12.4	3	-F							
BIGB	12	1734	1735	1737	S14	W05	.308	16418	12.4	3	-F	*			60	.6		
HUAN	12	1735		1736	S15	W04	.320	16418	12.4	1	-F	*	C	1735				
GRP79736	12	1735+2	1737+1	1741D	N09	E23	.401	16421	14.5	6	-N				70	.8	U	
BIGB	12	1735	1737	1915D	N09	E23	.400	16421	14.5	40D	-B	1			100	1.1	U	
HUAN	12	1737	1738	1741	N09	E24	.415	16421	14.5	4	-N	1	C	1738	45	.5		
737 BIGB	12	1827	1828	1848	S16	W43	.727	16413	9.5	21	-N	1			75	1.0		ZX
738 BIGB	12	1829	1838	1900E	S26	W67	.945	16410	7.7	31D	-N	1			15	.4		ZX
739 BIGB	12	1900	1902	1916	N33	E05	.868	16426	16.9	56	-F	1			38	.7		ZX
740 HUAN	12	1910	1910	1912	N31	E06	.475	16419	13.2	2	-N	1	C	1910	40	.5		ZX
GRP79741	12	1936+5	1942+7 2008	2105	N12	E24	.428	16421	14.6	89	2B						FIUM	
BIGB	12	1936	1942	2056D	N13	E27	.476	16421	14.8	80D	1B	1			200	2.3	MUF	
HUAN	12	1938		2042D	N14	E25	.453	16421	14.7	64D	2N	2	P	1949	450	5.2	E	
PALE	12	1940E	1949U	2110	N11	E22	.393	16421	14.5	80D	2B	3	C		497		U F	
BIGB	12	1940	1947	2056D	N10	E20	.358	16421	14.3	76D	-N	1			100	1.1	F	
HOLL	12	1941	1949	2115	N13	E24	.433	16421	14.6	84	2B	3	C		510		U F	
CULG	12	2004E	2008	2106D	N13	E27	.476	16421	14.9	62D	2B		P	2008	710	7.8	FI	
742 HOLL	12	1941	1942	1950	S15	W41	.701	16413	9.7	9	-F	3	C		23		F	ZX
GRP79743	12	1943	1944 2010	2106D	N01	E32	.531	16424	15.2	83	-N						F	
BIGB	12	1943	1944	2056D	S00	E32	.532	16424	15.2	73D	-N	1			75	.9	F	
CULG	12	2004E	2310U	2106D	N02	E33	.544	16424	15.3	62D	-N		P	2010	120	1.4		

Hα SOLAR FLARES

NOVEMBER 1979

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX LONG. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONF	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
GRP79744	12	2016	2018 2038	2058	S15	W16	.409	16418	11.6	42	-N						
CULG	12	2016	2018	2058	S14	W14	.377	16418	11.8	42	-N		C	2018	120	1.3	
CULG	12	2037	2038	2041	S15	W18	.441	16418	11.5	4	-N	*	C	2038	30	.3	
745 CULG	12	2018	2022	2036	N21	E74	.961		18.4	18	-F		C	2022	20		ZX
GRP79746	12	2214+9	2230+6 2312	2337	N24	E37	.660	16425	15.7	83	1N				210	2.8	F
HOLL	12	2214	2231	2334	N25	E37	.665	16425	15.7	80	1N	3	C		317		F
PALE	12	2227	2230	22360	N23	E37	.655	16425	15.7	90	1N	3	C		150		F
BIGB	12	2234E	22360	2337	N24	E37	.660	16425	15.7	630	1B		P	2236	210	2.7	
CULG	12	2258E	2312U	2353	N24	E37	.660	16425	15.7	550	-F		P	2312	140	1.8	F
747 HOLL	12	2225	2227	2236	N33	E08	.511	16419	13.5	13	-F	3	C		46		F ZX
748 CULG	12	2343	2348	2351	S16	W19	.452	16418	11.6	8	-N		C	2348	40	.4	H ZX
749 CULG	12	2345	2347	2356	N33	E52	.838	16426	16.9	11	-F		C	2347	30	.6	ZX
750 CULG	13	0000	0002	0008	S20	W18	.486	16418	11.7	8	-F		C	0002	40	.5	ZX
751 CULG	13	0025	0029	0042	S22	W65	.929	16410	8.1	17	?N		C	0029	80	2.0	ZX
	IMP.1 NO : PALE PURP																
GRP79752	13	0043	0047	0052	S17	W19	.462	16418	11.6	9	-N						H
CULG	13	0043	0047	0054	S18	W20	.483	16418	11.5	11	-N		C	0047	100	1.2	H
PURP	13	0049E	0049	0050	S17	W19	.462	16418	11.6	10	1N		C				
GRP79753	13	0106+5	0120+0	0143	N23	W85	.995	16406	6.7	37	-N						
CULG	13	0106	0120	0154	N24	W88	.999	16406	6.4	48	1N		C	0120	80		
PALE	13	0111	0120	0131	N23	W83	.991	16406	6.8	20	-F	2	C				
754 CULG	13	0146	0201	0350	N23	E47	.782	16426	16.6	124	?N		C	0201	140	2.0	ZX
	IMP.1 NO : PALE PURP																
755 CULG	13	0155	0201	0209	S18	W20	.483	16418	11.6	14	-N		C	0201	60	.7	H ZX
756 CULG	13	0208	0213	0245	S25	W71	.962	16410	7.8	37	?N		C	0213	120		ZX
	IMP.1 NO : PALE PURP																
757 CULG	13	0259	0305	0316	S10	W56	.841	16413	8.9	18	?N		C	0305	140	2.7	ZX
	IMP.1 NO : PALE PURP MTK																
758 CULG	13	0309	0324	0333	S11	E70	.946	16430	18.4	24	-F		C	0324	40		ZX
GRP79759	13	0317	0325+0	0330	S17	W21	.483	16418	11.6	13	-N						H
CULG	13	0317	0325	0334	S18	W21	.493	16418	11.6	17	-N		C	0325	80	.9	H
PURP	13	0325E	0325	0326	S17	W21	.483	16418	11.6	10	1N		P				
760 CULG	13	0400	0414	0455	S26	W08	.502	16418	12.6	55	?F		C	0414	250	2.8	ZX
	IMP.1 NO : PURP MTK																
761 CULG	13	0411	0413	0419	S15	W44	.733	16413	9.9	8	-F		C	0413	20	.3	ZX
GRP79762	13	0418+2	0423+2	0430	N30	E04	.487	16419	13.5	12	-N						
CULG	13	0418	0425	0436	N30	E05	.499	16419	13.6	18	-N		C	0425	160	1.8	
PURP	13	0420	0423	0424	N31	E04	.472	16419	13.5	4	1N		C				
763 CULG	13	0553	0612	0652	S28	W80	.992	16412	7.2	59	?N		C	0612	260		ZX
	IMP.2 NO : PURP MTK ABST																
GRP79764	13	0610+4	0620+4	0722	N13	E41	.665	16425	16.3	72	-F				90	1.2	DJ
CULG	13	0610	0624	0722	N13	E41	.665	16425	16.3	72	-N		C	0624	90	1.3	
ABST	13	0614	0628	0543D	N14	E42	.680	16425	16.4	290	-F		P	0628	87	1.2	DJ
GRP79765	13	0623+2	0627+2	0635	S18	W22	.504	16418	11.6	12	-F				80	.9	DHJ
CULG	13	0623	0629	0637	S18	W22	.504	16418	11.6	14	-N		C	0629	80	.9	H
ABST	13	0625	0627	0633	S18	W23	.515	16418	11.5	8	-F		P	0627	87	1.0	DJ
766 ABST	13	0746	0748	0752	S18	W23	.515	16418	11.6	6	-F		P	0748	87	1.0	D ZX
GRP79767	13	0844	0906+5	1011D	S16	W16	.419	16418	12.2	87	-F				100	1.1	EJ
MONT	13	0844	0911	1011D	S15	W17	.418	16418	12.1	870	-N		C	0911	80		E
ABST	13	0859E	0904	0911D	S15	W19	.440	16418	11.9	120	-F		P	0904	87	1.0	DJ
ABST	13	0859E	0906	0911D	S18	W12	.410	16418	12.5	120	-F		P	0906	131	1.5	EJ

Hα SOLAR FLARES

NOVEMBER 1979

OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IMPOR-TANCE	OBS.		MEASUREMENTS			REMARKS	
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Millionths of Disk	CORR AREA Sq. Deg.		
768 ABST	13	1007E	1007	1010	S17	W49	.792	16413	9.7	30	-N		P	1007	87	1.4	D	ZX
769 RAMY	13	1138E	1135U	1158	N21	W78	.977	16406	7.6	280	-N	3	C					ZX
GRP79778	13	1518E	1522 1540	1547	N19	W87	.998	16406	7.1	29	1B						Y	
HOLL	13	1518E	1522U	1541	N19	W90	1.000	16406	6.9	230	1B	3	C					
RAMY	13	1535E	1540U	1552D	N19	W85	.995	16406	7.3	170	-B	3	C				Y	
771 BIGB	13	1827	1829	1841	S25	W80	.991	16410	7.8	14	-N		C	1829	60		A	ZX
772 BIGB	13	1944	1946	1948	N17	E34	.720	16426	16.4	4	-N		C	1946	20	.2		ZX
GRP79773	13	2127+1	2129+1	2135	S18	W31	.604	16418	11.6	8	-F				25	.3	H	
CULG	13	2127	2130	2136	S18	W32	.615	16418	11.5	9	-F		C	2130	30	.4	H	
BIGB	13	2128	2129	2133	S19	W30	.600	16418	11.6	5	-N		C	2129	20	.2		
774 CULG	13	2200	2203	2215	S13	W55	.838	16413	9.8	15	-F		C	2203	30	.5	K	ZX
775 BIGB	13	2203	2204	2232	S18	E15	.444	16423	15.1	29	-N		C	2204	30	.3		ZX
776 CULG	13	2215	2218	2238	N22	E07	.343	16421	14.5	15	-N		C	2218	100	1.0		ZX
777 CULG	13	2248	2253	2312	S18	W33	.626	16418	11.5	14	-N		C	2253	60	.8	H	ZX
778 CULG	13	2322	2332	2345	S12	W61	.887	16413	9.4	23	-F		C	2332	70	1.5	F	ZX
779 CULG	13	2329	2333	2339	S18	W33	.626	16418	11.5	10	-F		C	2333	40	.5	H	ZX
GRP79780	14	0030+1	0034+0	0037	S19	W32	.621	16418	11.6	7	-N						H	
CULG	14	0030	0034	0036	S18	W33	.625	16418	11.5	6	-N		C	0034	40	.5	H	
PURP	14	0031	0034	0037	S20	W32	.628	16418	11.5	6	-N		C					
GRP79781	14	0033+4	0039+2	0112	S18	E10	.394	16423	14.8	39	-N						FS	
CULG	14	0033	0041	0125	S18	E10	.394	16423	14.8	52	-N		C	0041	140	1.5	SF	
PURP	14	0037	0039	0058	S18	E10	.394	16423	14.8	21	-N		C					
782 CULG	14	0104	0110	0120	S12	W22	.446	16418	12.4	16	-N		C	0110	80	.9		ZX
783 CULG	14	0108	0117	0140	N12	E04	.171	16421	14.3	32	-N		C	0117	80	.8		ZX
GRP79784	14	0109>9	0114 0127+0	0144	N34	W01	.515	16419	14.0	35	1N						FH	
CULG	14	0109	0114	0128	N30	W06	.463	16419	13.6	19	-N		C	0114	140	1.6	H	
CULG	14	0110	0127	0157	N36	E01	.545	16419	14.1	47	1N		C	0127	280	3.2	F	
PURP	14	0125	0127	0130	N35	E01	.530	16419	14.1	5	1N		C					
785 CULG	14	0134	0149	0201	S16	W31	.589	16418	11.7	27	-N		C	0149	90	1.1		ZX
GRP79786	14	0230+5	0235+1	0246	S19	W33	.632	16418	11.6	16	-N						HU	
CULG	14	0230	0235	0247	S18	W34	.637	16418	11.6	17	-B		C	0235	80	1.0	H	
PURP	14	0233	0236	0245	S19	W32	.621	16418	11.7	12	1N		C					
PALE	14	0235	0236	0237D	S19	W33	.632	16418	11.6	20	-F	3	C		30		U H	
787 YUNN	14	0439	0440	0441D	S15	W31	.582	16418	11.9	20	-N		C		110	1.3		ZX
788 CULG	14	0505	0510	0515	S16	W34	.624	16418	11.7	10	?N		C	0518	200	2.5	HFT	ZX
	IMP.1	NO	MITK	PURP	YUNN													
789 CULG	14	0543	0545	0551	N31	E31	.649	16426	16.6	8	-N		C	0545	40	.5	H	ZX
GRP79790	14	0544	0551	0600	S18	E11	.401	16423	15.1	16	-N				50	.5		
CULG	14	0544	0551	0610	S18	E11	.401	16423	15.1	26	-F		C	0551	60	.7		
YUNN	14	0552E	0552	0600	S19	E09	.402	16423	14.9	80	-N		C		47	.5		
PURP	14	0552E	0552	0600	S18	E12	.408	16423	15.1	80	-N		C					
791 PURP	14	0715	0726	0728	S12	W82	.992		9.2	13	1N		C					ZX
792 HUAN	14	1343E		1344D	N33	W12	.531	16419	13.7	10	-N	1	P	1344	35	.4	E	ZX
793 HOLL	14	1520E	1524	1540D	N17	W90	1.000	16408	7.9	200	-N	3	C					ZX
794 HUAN	14	1526	1529	1534	S21	W31	.625	16418	12.3	8	-F	1	C	1529	15	.2	D	ZX
GRP79795	14	1545+1	1557	1626	N20	E21	.448	16425	16.2	41	-F						E	
BIGB	14	1545	1557	1618D	N20	E23	.472	16425	16.4	330	-N		P	1557	70	.8		
HUAN	14	1546		1626	N20	E20	.437	16425	16.2	40	-F	1	C				E	

Hα SOLAR FLARES

NOVEMBER 1979

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS	
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Millionths of Disk	CORR AREA Sq. Deg.		
GRP79796	14	1617+6	1625	1638	N35	W05	.535	16419	14.3	21	-F				35	.4	E	
HUAN	14	1617		1636	N35	W06	.537	16419	14.2	19	-F	1	C	1626	40	.5	E	
BIGB	14	1623	1625	1639	N35	W05	.535	16419	14.3	16	-N		C	1625	30	.3		
GRP79797	14	1929+7	1931+5	1945	N14	E17	.343	16425	16.1	16	-F							
BIGB	14	1929	1931	1945	N14	E18	.347	16425	16.2	16	-N	*	C	1931	120	1.3		
HOLL	14	1936	1936	1945	N14	E16	.330	16425	16.0	9	-F	*	C		24			
798 BIGB	14	1930	1931	1935	S34	E25	.693	16433	16.7	5	-N		C	1931	30	.3		ZX
GRP79799	14	2014+0	2015+1	2028	N14	[illegible]0	.191	16421	14.8	14	-F				50	.5		
BIGB	14	2014	2016	2030	N14	E00	.191	16421	14.8	16	-N		C	2016	50	.5		
HOLL	14	2014	2015	2025	N14	W01	.192	16421	14.8	11	-F	3	C		60			
GRP79800	14	2023+1	2025+3	2110	N33	W15	.547	16419	13.7	47	1B				350	4.2		
BIGB	14	2023	2028	2110	N34	W15	.559	16419	13.7	47	1B		C	2028	260	2.8		
HOLL	14	2024	2027	2109	N33	W16	.553	16419	13.7	45	1B	3	C		356		DE	
PALE	14	2024	2025	2046	N32	W13	.522	16419	13.9	22	1B	3	C		205		DE	
PALE	14	2024	2025	2030D	N31	W18	.541	16419	13.5	6D	1B	3	C		205		DE	
CULG	14	2034E	2034U	2113	N33	W14	.541	16419	13.8	39D	2N		P	2034	470	[illegible].6	FB	
GRP79801	14	2033+3	2036+2	2041	N25	W50	.797	16414	11.1	8	-F				25	.4		
BIGB	14	2033	2036	2041	N25	W50	.800	16414	11.1	8	-F		C	2036	30	.5		
HOLL	14	2036	2038	2040	N25	W51	.806	16414	11.0	4	-F	3	C		20			
802 BIGB	14	2045	2050	2105	N23	E89	.999	16437	21.5	19	-N		C	2050	20			ZX
803 CULG	14	210?E	2107U	2112	S33	E24	.676	16433	16.7	5D	-N		C	2107	+0	.6		ZX
GRP79804	14	2116+0	2118+2	2134	N35	W09	.546	16419	14.2	18	-N				110	1.3		
BIGB	14	2116	2118	2142	N35	W10	.549	16419	14.1	26	-N		C	2118	100	1.0		
CULG	14	2116	2120	2126	N36	W09	.560	16419	14.2	10	-N		C	2120	120	1.4		
805 CULG	14	2118	2121	2126	S13	W43	.714	16418	11.7	8	-F		C	2121	100	1.4		ZX
806 CULG	14	2237	2243	2254D	S36	E25	.713	16433	16.8	17D	-F		P	2243	30	.4	K	ZX
GRP79807	14	2246+0	2248+4	2306D	S15	W41	.700	16418	11.9	20	-N				110	1.5		
BIGB	14	2246	2249	2341	S15	W40	.688	16418	11.9	55	-N		C	2249	110	1.5		
CULG	14	2248	2252	2254D	S14	W43	.718	16418	11.7	8D	2N		P	2252	420	5.9	F	
HOLL	14	2246	2248	2306	S16	W42	.715	16418	11.8	20	-N	3	C		123		F	
PALE	14	2248E	2250U	2305D	S16	W39	.682	16418	12.0	17D	-F	2	C		80		DE	
	14	2354	2357	NO FLARE PATROL														
	15	0023	0030	NO FLARE PATROL														
808 YUNN	15	0030	0046	0100	S16	W37	.658	16418	12.2	30	1B		C		225	3.0	E	ZX
809 YUNN	15	0304	0319	0332	S11	W36	.621	16418	12.4	28	-N		C		63	.8		ZX
GRP79810	15	0454+1	0455+5	0505	S13	W46	.747	16418	11.8	11	-N						E	
CULG	15	0454E	0455	0517D	S13	W47	.758	16418	11.7	13D	1N		P	0455	250	3.9		
YUNN	15	0455	0500	0503	S14	W46	.750	16418	11.8	8	-F		C		96	1.4	E	
811 CULG	15	0456	0506	0517D	N33	E20	.580	16426	16.7	11D	-F		C	0506	30	.4		ZX
GRP79812	15	0537	0538	0539	S14	W77	.979	16413	9.5	2	-N							
YUNN	15	0537	0538	0539	S13	W74	.966	16413	9.7	2	-N		C		47			
PURP	15	0538E	0538	0538D	S16	W80	.988	16413	9.2		1N		P					
GRP79813	15	0741+8	0745	0808	S14	W48	.771	16418	11.7	27	1N						EHU	
			0754															
YUNN	15	0741	0745	0811	S13	W47	.758	16418	11.8	30	1B		C		274	+.2	H	
TACH	15	0749	0754	0815	S15	W50	.795	16418	11.6	16	1N		C	0754	221	3.6	EU	
814 HTPR	15	1357	1405	1440	N34	W23	.613	16419	13.9	43	-N		C	1405	50	.6	E	ZX
815 BIGB	15	1617	1628	1705	N24	E76	.971	16437	21.4	48	-N		C	1628	30			ZX
	15	1642	1646	NO FLARE PATROL														
GRP79816	15	1642+9	1654+2	1717D	N33	W26	.626	16419	13.7	35	-B				120	1.5	U	
BIGB	15	1642	1656	1758	N32	W27	.624	16419	13.7	76	-B		C	1656	110	1.3		
HOLL	15	1651	1654	1717	N34	W25	.628	16419	13.8	26	-B	2	C		125		UDE	
817 BIGB	15	1712	1724	1741	N24	E76	.971	16437	21.4	29	-N		C	1724	30			ZX

Hα SOLAR FLARES

NOVEMBER 1979

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS	
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.		
818 BIGB	15	1929	1932	1951	N32	E22	.584	16426	17.5	22	-F		C	1932	40	.4		ZX
GRP79819	15	2021+1	2023+5 2116	2142	N18	W14	.269	16421	14.8	81	1B						I	
PALE	15	2021	2023	20250	N09	W16	.293	16421	14.8	40	1B	3	C		356		DE	
BIGB	15	2022	2025	2142	N08	W12	.225	16421	14.9	80	1B		C	2025	330	3.5		
CULG	15	2023E	2028	21160	N12	W14	.286	15421	14.8	530	3B		P	2028	1300	13.5	CFI	
BIGB	15	2115	2116	2137	N12	W17	.328	16421	14.6	22	-N		C	2116	30	.3		
GRP79820	15	2122+9	2140+9 2256+4	2248	N29	W35	.673	16419	13.3	138	2B						FHIK	
CULG	15	2107U	2159	0046	N28	W38	.696	16419	13.0	2190	2B		C	2159	740	9.6	FKI	
BIGB	15	2122	2149	2353D	N29	W38	.702	16419	13.0	1510	2B		P	2149	430	5.6		
PALE	15	2131	2140U	2140D	N28	W36	.675	16419	13.2	90	1B	3	C		168		F	
PALE	15	2131	2140U	2216	N31	W31	.650	16419	13.6	65	1B	3	C		168		F	
BIGB	15	2258	2256	2326	N36	W27	.662	16419	13.9	36	-B		C	2256	60	.7		
PALE	15	2255	2300	2308	N31	W31	.650	16419	13.6	13	-N	3	C		75		F H	
821 PALE	16	0114	0116	0119	S15	W53	.823	16418	12.1	5	-F	3	C		32		F	ZX
822 PALE	16	0124	0124	0131	S15	W53	.823	16418	12.1	7	-F	3	C		24		F	ZX
823 CULG	16	0150	0152	0159	N12	W28	.488	16421	14.0	9	-N		C	0152	130	1.5	H	ZX
824 CULG	16	0220	0224	0244	N14	W05	.276	16425	15.7	24	-F		C	0224	70	.7	F	ZX
	16	0335	0341	NO FLARE PATROL														
825 CULG	16	0702	0710	0721	S22	E28	.500		18.4	19	-F		C	0710	80	1.0		ZX
826 CULG	16	0751	0758	0812	S19	W56	.841	16418	12.1	21	-F		C	0758	60	1.2		ZX
827 HTPR	16	0919	0923	0930	N32	E05	.494	16426	16.8	11	-F		C	0923	40	.5		ZX
828 HTPR	16	0935	1005	1045	N18	W05	.276	16425	16.0	70	2N		C	1005	350	5.5	EI	ZX
829 ATHN	16	1013E		1015D	N27	E07	.425	16426	17.0	20	-N	1			114	1.3		ZX
830 HTPR	16	1047	1050	1056	N20	E01	.297	16425	16.5	9	-F		C	1050	20	.2	E	ZX
831 KANZ	16	1147	1150	1157	N22	E64	.906	16427	21.3	10	-F	1						ZX
832 KANZ	16	1200	1204	1209	N30	E02	.459	16426	16.7	9	-F	1						ZX
833 HTPR	16	1249	1300	1305	N21	E02	.315	16426	16.7	16	-F		C	1300	50	.5	E	ZX
834 KANZ	16	1316		1323	S21	E62	.994	16439	22.7	7	-N	1						ZX
835 HTPR	16	1450	1458	1506	S33	E01	.584	16433	16.7	16	-N		C	1458	70	.8	E	ZX
836 BIGB	16	1556	1558	1606	S19	W67	.935	16418	11.6	10	-N		C	1558	30			ZX
837 BIGB	16	1751	1756	1805	S21	E90	1.000	16439	23.5	14	-N		C	1756	30			ZX
GRP79838	16	1840+4	1842+3	1850	N29	W02	.443	16426	16.6	10	-N				40	.4	E	
BIGB	16	1840	1842	1850	N29	W01	.443	16426	16.7	10	-B		C	1842	20	.2		
HOLL	16	1841	1842	1849	N29	W02	.443	16426	16.6	8	-N	3	C		52			
HUAN	16	1844	1845	1852	N28	W02	.428	16426	16.6	8	-N	2	C	1845	50	.6	E	
GRP79839	16	1857+3	1858+3	1914	N34	00	.519	16426	16.8	17	-B				40	.5		
BIGB	16	1857	1858	19010	N34	E01	.519	16426	16.9	40	-B		P	1858	30	.3		
HOLL	16	1858	1858	1914	N34	W01	.519	16426	16.7	16	-B	3	C		51			
PALE	16	1859	1859	1914	N35	W01	.534	16426	16.7	15	-B	3	C		50		F	
HUAN	16	1900	1901	1921	N33	E00	.504	16426	16.8	21	-N	2	C	1901	25	.3	D	
840 HUAN	16	1919	1920	1924	S11	W08	.568	16433	16.2	5	-F	1	C	1920	25	.3	D	ZX
841 HUAN	16	1943E		1947	S09	W36	.609	16422	14.1	40	-F	1	P					ZX
GRP79842	16	2014+9	2036 2047	2102	N33	W02	.505	16426	16.7	48	-F						HK	
CULG	16	2014	2036	2112	N33	W03	.506	16426	16.6	58	-N		C	2036	120	1.4	FKTH	
HUAN	16	2047	2047	2052	N33	W02	.505	16426	16.7	5	-F	1	C	2047	25	.3	D	
843 CULG	16	2023	2030	2043	S05	W38	.626	16422	14.8	20	-F	*	C	2030	60	.8		ZX

Hα SOLAR FLARES

NOVEMBER 1979

OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS	
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND	TYPE	TIME UT	MEAS. AREA Mill of Disk	CORR AREA Sq. Deg.		
GRP79844	16	2024+5	2032+4	2058	S33	00	.584	16433	16.8	34	-N							
CULG	16	2024	2036	2059	S32	W02	.571	16433	16.7	35	1N		C	2036	230	2.8	FT	
HUAN	16	2029	2032	2056	S35	E01	.612	16433	16.9	27	-N	1	C	2032	60	.8	E	
GRP79845	16	2030>9	2139+0 2150	2217	S10	W47	.749	16418	13.3	107	1N						HIKLU	
CULG	16	2030	2150	0026	S08	W47	.744	16418	13.3	236	2N	*	C	2150	750	10.5	LFIMK	
HUAN	16	2055		2108	S15	W48	.774	16418	13.3	13	-F	*	C	2057	25	.4	D	
PALE	16	2132	2139	2221	S12	W48	.765	16418	13.3	49	-F	*	C		79		UDE	
BIGB	16	2139E	2139U	22120	S09	W45	.724	16418	13.5	330	1B	*	P	2139	170	2.5		
846 HUAN	16	2040	2050	2102	N21	W12	.369	16425	16.0	22	-N	2	C	2050	25	.3	D	ZX
847 CULG	16	2116	2120	2127	N31	W04	.477	16426	16.6	11	-N		C	2120	80	.9	T	ZX
848 CULG	16	2120	2123	2142	S32	W08	.582	16433	16.3	22	-F		C	2123	80	1.0	T	ZX
849 CULG	16	2135	2144	2217	N24	W13	.418	16425	15.9	42	?N		C	2144	380	4.2	FL	ZX
	IMP.1 NO : HOLL PALE BIGB																	
GRP79850	16	2152+4	2200+5	2211	N23	E60	.878	16437	21.4	19	-F						F	
CULG	16	2152	2205	2215	N23	E61	.886	16437	21.5	23	-N		C	2205	60	1.2		
PALE	16	2155	2200	2206	N24	E60	.880	16437	21.4	10	-F	3	C		22		F	
GRP79851	16	2156+5	2158	2208	S20	E83	.995	16439	23.1	12	-F						AF	
PALE	16	2156	2158	2204	S20	E81	.991	16439	23.0	8	-F	3	C		7		F	
BIGB	16	2201	2212U	22120	S20	E85	.998	16439	23.3	110	-N		P	2212	50		A	
852 CULG	16	2200	2202	2210	N33	W05	.509	16426	16.5	10	-N		C	2202	120	1.3	HT	ZX
853 CULG	16	2212	2215	2223	S20	W78	.952	16418	11.7	11	-F		C	2215	30			ZX
854 CULG	16	2224	2233	2256	N30	W05	.464	16426	16.6	32	-N		C	2233	100	1.1	FKT	ZX
855 CULG	16	2332	2336	0006	S13	W74	.966	16418	11.4	34	?N		C	2336	200			ZX
	IMP.1 NO : PALE VORO																	
856 CULG	16	2333	2341	2353	S31	W07	.565	16433	16.5	20	-F		C	2341	60	.8	T	ZX
857 CULG	16	2349	2353	2359	S18	W58	.873	16418	12.6	10	-N	*	C	2353	70	1.4		ZX
858 PALE	16	2356	2357	2359	S20	E81	.991	16439	23.1	3	-F	3	C				DE	ZX
GRP79859	17	0020+2	0022+2	0029	N33	W02	.506	16426	16.9	9	-N						D	
CULG	17	0020	0024	0036	N36	W02	.551	16426	16.9	16	-N		C	0024	140	1.7		
PALE	17	0022	0022	0026	N30	W04	.464	16426	16.7	4	-F	3	C		21		DE	
VORO	17	0022	0024	0029	N33	W02	.506	16426	16.9	*	-N		C	0024	63	.8	D	
GRP79860	17	0115+5	0120+5	0129	N23	E57	.855	16437	21.3	14	-F				50	1.0	DH	
VORO	17	0115	0120	0126	N23	E58	.863	16437	21.4	11	-F		C	0120	45	.9	DH	
PALE	17	0119	0121	0134	N23	E57	.855	16437	21.3	15	-N	3	C		43		DE	
MANI	17	0120	0125	01290	N25	E56	.851	16437	21.3	90	-F	3	C		50			
GRP79861	17	0118+2	0122+1	0131	S01	W28	.473	16424	15.8	13	-F				80	.9	D	
CULG	17	0118	0123	0135	S01	W28	.473	16424	15.8	17	-N		C	0123	100	1.2		
VORO	17	0120	0122	0126	S02	W28	.475	16424	15.8	6	-F		C	0122	63	.7	D	
862 CULG	17	0130	0154	0215	N30	W06	.469	16426	16.6	45	-F		C	0154	80	.9	H	ZX
863 CULG	17	0133	0135	0144	S18	W59	.880	16418	12.6	11	-F		C	0135	50	1.1		ZX
GRP79864	17	0220+5	0232>9 0254	0327	N30	W46	.761	16419	13.6	67	1N				150	2.4	S	
CULG	17	0220	0254	0434	N32	W50	.822	16419	13.3	134	2N		C	0254	430	6.9	FS	
VORO	17	0222	0236	0300	N31	W47	.794	16419	13.6	38	1F		C	0236	152	2.6	E	
YUNN	17	0224	0248	0343	N27	W45	.760	16419	13.7	79	1N		C		129	2.2		
PALE	17	0225	0241	0310	N29	W46	.777	16419	13.7	45	1N	2	C		238		FDE	
MANI	17	0229E	0245	025CD	N31	W45	.777	16419	13.7	210	1N	2	V		180	2.8		
MANI	17	0229E	0232U	02500	N31	W45	.777	16419	13.7	210	-N	2	C		100		F	
GRP79865	17	0536	0542 0614	0636	S31	W10	.573	16433	16.5	60	1F						E	
TACH	17	0536	0542	0638	S32	W09	.583	16433	16.6	62	1F		C	0542	274	3.5	E	
CULG	17	0600U	0614	0633	S31	W12	.581	16433	16.4	330	1F		C	0614	240	3.0	T	
866 HTPR	17	0735	0741	0750	S33	W09	.597	16433	16.6	15	-F		C	0741	30	.3	ET	ZX

Hα SOLAR FLARES

NOVEMBER 1979

OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS	
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX LONG. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.		
867 HTPR	17	0755	1757	0812	S03	W39	.635	16422	14.4	7	-F		C	0757	10	.1		ZX
868 HTPR	17	0804	0809	0815	N24	E45	.748	16436	20.7	11	-F		C	0809	20	.3		ZX
869 HTPR	17	0823	0849	1000	S32	W15	.688	16433	16.2	97	-N		C	0849	80	.9	E	ZX
870 HTPR	17	0836	0836	0841	N28	W09	.451	16426	16.7	5	-F		C	0836	20	.2		ZX
871 HTPR	17	1033	1040	1058	S32	W16	.613	16433	16.2	25	-F		C	1040	20	.2	E	ZX
872 HTPR	17	1055	1109	1210	N26	W38	.686		14.6	65	-F		C	1109	20	.3		ZX
873 HTPR	17	1130	1136	1200	S32	W17	.619	16433	16.2	30	-N		C	1136	150	1.7	E	ZX
874 HTPR	17	1145	1200	1230	N14	W17	.346	16425	16.2	45	-B		C	1200	130	1.3	E	ZX
875 HTPR	17	1216	1225	1230	S07	W50	.775	16422	13.8	14	-N		C	1225	50	.7		ZX
GRP79876	17	1415+2	1422+4	1510	S32	W14	.603	16433	16.5	55	1N						E	
WEND	17	1415	1422	1458	S31	W14	.590	16433	16.5	43	1N		C	1422	?20	2.8	E	
HTPR	17	1417	1426	1510	S32	W18	.624	16433	16.2	53	-N		C	1426	100	1.1	E	
HUAN	17	1429E		1523	S32	W13	.599	16433	16.6	540	1N	1	P	1431	160	2.0	CE	
877 HUAN	17	1529		1536	S04	W34	.568	16424	15.1	7	-F	1	C	1533	25	.3	D	ZX
878 HUAN	17	1603	1612	1620	S19	W32	.618	16423	15.3	17	-F	1	C	1612	25	.3	D	ZX
879 HUAN	17	1615		1702D	S09	W47	.746	16422	14.2	470	-F	1	P	1641	40	.6		ZX
880 HUAN	17	163F		17020	S33	W13	.612	16433	16.7	270	-N	2	P	1637	120	1.6	E	ZX
	17	1702	1731	NO FLARE PATROL														
GRP79881	17	1837+0	1838+2	1915	S09	W49	.768	16422	14.1	28	-F				45	.7	FU	
HOLL	17	1837	1838	1910	S10	W49	.771	16422	14.1	33	-N	3	C		44			
PALE	17	1837	1848	1910	S09	W49	.768	16422	14.1	23	-F	3	C		46		U	
882 PALE	17	1842	1849	1853	S33	W15	.621	16433	16.7	11	-F	3	C		93		F	ZX
883 HOLL	17	1905	1906	1927	S03	W39	.635	16424	14.9	21	-F	3	C		25			ZX
GRP79884	17	1912+1	1913+0	1923	S07	W50	.775	16422	14.0	11	-F				20	.3	F	
HOLL	17	1912	1913	1929	S07	W51	.786	16422	14.0	17	-F	3	C		24			
PALE	17	1913	1913	1916	S07	W50	.775	16422	14.1	3	-F	3	C		19		F	
885 PALE	17	1929	1949	1955	N10	W42	.674	16421	14.7	26	-F	3	C		34		F	ZX
886 PALE	17	1930	1945	1956	S07	W50	.775	16422	14.1	26	-F	3	C		38		F	ZX
887 PALE	17	2000	2009	2013	S07	W50	.775	16422	14.1	13	-F	3	C		33		F	ZX
888 PALE	17	2030	2036	2040	N10	W42	.674	16421	14.7	10	-N	3	C		39		F	ZX
889 PALE	17	2100	2100	2117	N23	E46	.754	16437	21.3	17	-F	3	C		17		F	ZX
890 CULG	17	2126	2133	2152	S31	W18	.612	16433	16.5	26	?B		C	2133	350	4.6	T	ZX
	IMP.1 NO : HOLL																	
891 CULG	17	2132	2142	2156	S21	E70	.953	16439	23.1	24	-F		C	2142	40			ZX
892 CULG	17	2210	2223U	2244	S03	W53	.802	16422	13.9	34	-F		C	2223	120	1.9	T	ZX
893 PALE	17	2215	2228	2239	N24	E45	.748	16437	21.3	24	-F	3	C		29		F	ZX
894 CULG	17	2218	2242	2342	N38	W32	.718	16419	15.?	84	?F		C	2242	160	2.2	FS	ZX
	IMP.1 NO : PALE																	
895 CULG	17	2310	2320	2339	S20	E73	.966	16439	23.4	29	1N		C	2320	180			ZX
GRP79896	18	0248+4	0248	0308	S01	W41	.658	16424	15.8	18	-F						F	
			0255															
PALE	18	0248	0248U	0259D	S01	W42	.671	16424	15.8	110	-F	2	C		46		F	
PURP	18	0252	0255	0306	S01	W40	.645	16424	15.1	14	-N		C					
897 CULG	18	0405	0416	0426	S20	E68	.942	16439	23.3	20	-F		C	0416	30			ZX
898 PURP	18	0521	0535	0539	N12	W27	.475	16425	16.2	18	1N		C					ZX

Hα SOLAR FLARES

NOVEMBER 1979

OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS	
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONF.	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.		
899 ABST	18	0637E	0640	0648	N12	W49	.760	16421	14.6	110	?F		P	0648	192	3.0	EJ	ZX
	IMP.1 NO 3 PURP																	
900 ABST	18	0637E	0640	0650	N32	W07	.503	16426	17.8	130	-F		P	0648	131	1.6	EJ	ZX
GRP79901	18	0656	0704+4 0720	0740	S06	W55	.825	16422	14.2	44	1N				120	2.1	EJ	
PURP	18	0656	0708	0742	S06	W56	.835	16422	14.1	46	1N		C					
CATA	18	0700E	0700	0700D	S06	W54	.808	16422	14.2		1N	2	P	0700	168	3.0		
MANI	18	0704E	0704U	07070	S07	W56	.836	16422	14.1	30	-F	2	C		80			
ABST	18	0713E	0720	0737	S05	W53	.804	16422	14.3	240	1N		P	0720	157	2.9	EJ	
GRP79902	18	0715E	0715 0733	0743	N09	W52	.789	16421	14.4	28	1B						EJK	
CATA	18	0715E	0715	0740	N06	W54	.808	16421	14.3	250	1B	2	P	0715	140	2.5		
ABST	18	0719E	0733	0745D	N13	W51	.783	16421	14.5	260	-N		P	0733	87	1.5	EJK	
903 ABST	18	0721	0737	0740	N31	W11	.505	16426	17.5	19	-F		C	0737	105	1.3	D	ZX
904 ABST	18	0827	0832	0841	S06	W60	.870	16422	13.9	14	?F		C	0832	131	2.6	E	ZX
	IMP.1 NO 3 CATA																	
905 CATA	18	1015	1020	1025D	N01	W46	.719	16424	15.8	100	-B	1	P	1020	84	1.2		ZX
906 CATA	18	105E	1110	1120D	S27	W29	.652	16433	16.3	250	1B	1	P	1110	337	4.6		ZX
907 HUAN	18	1540	1541	1550	S08	W62	.889	16422	14.0	10	-N	1	C	1541	25	.5	D	ZX
GRP79908	18	1625+5	1627	1648	S08	W62	.889	16422	14.0	23	-N							
BIGB	18	162E	1627	1640	S08	W63	.895	16422	14.0	15	-N		C	1627	60	1.4		
HOLL	18	1630	1652	1655	S10	W62	.891	16422	14.0	25	-N	3	C					
909 BIGB	18	1626	1628	1650	N32	W67	.935	16419	13.7	24	-N		C	1628	80			ZX
910 HOLL	18	1629E	1629U	1659	S33	W26	.684	16433	16.7	300	-B	2	C		144		F	ZX
911 HUAN	18	1704E		172E	S08	W64	.904	16422	13.9	210	-F	1	P					ZX
912 BIGB	18	1841	1842	1851	S06	W63	.895	16422	14.1	10	-N		C	1842	60	1.4		ZX
913 PALE	18	1854	1854	1858	N31	W17	.540	16426	17.5	4	-F	3	C		26		DE	ZX
GRP79914	18	1854+8	1902+1	1909D	S34	W28	.708	16433	16.7	15	-F				30	.4		
BIGB	18	1854	1903	1940	S34	W28	.708	16433	16.7	46	-N	*	C	1903	40	.5		
PALE	18	1902	1902	1909	S35	W28	.717	16433	16.7	7	-F	*	C		19		DE	
915 BIGB	18	1938	1941	195E	S02	W53	.801	16424	14.8	18	-B		C	1941	110	1.9		ZX
916 CULG	18	1959	2002	2013	S28	W36	.721	16433	16.1	14	-F		C	2002	70	1.0		ZX
917 CULG	18	2037	2046	2102	N25	W42	.722	16425	15.7	25	-F		C	2046	80	1.1		ZX
918 BIGB	16	2131	2132	2136	S01	W55	.820	16424	14.8	5	-B		C	2132	30	.5		ZX
919 HUAN	18	2136		2139D	N31	W20	.562	16426	17.4	30	-F	1	P					ZX
GRP79920	18	2313	2356+3 2420	0050	S07	W65	.910	16422	14.1	97	1N				230		FU	
PURP	19	0015	0020	0024	S07	W67	.924	16422	14.0	9	1N		C					
CULG	18	2313	2356	0050	S07	W65	.910	16422	14.1	97	2N		C	2356	220	5.1	F	
PALE	18	2343E	2359U	0115	S07	W62	.888	16422	14.3	120	1B	2	C		242		U =	
921 CULG	18	2352	2406	0039	N12	W61	.876	16421	14.4	47	-F		C	2406	50	1.0	F	ZX
922 CULG	19	0032	0035	0042	S18	E52	.820	16439	22.9	10	-N		C	0035	70	1.3	H	ZX
923 CULG	19	0115	0123	0135	N37	W64	.927	16419	14.3	20	-F		C	0123	40			ZX
924 CULG	19	0144	0147	0157	S17	W58	.869	16423	14.7	13	-F		C	0147	50	1.0		ZX
925 CULG	19	0150	0211	0221	N12	W63	.892	16421	14.4	31	-F		C	0211	40	.9		ZX
926 ABST	19	0554E	0558	0603D	S29	W41	.769	16433	16.2	90	-F		P	0558	96	1.6	E	ZX
GRP79927	19	0612+3	0616+1	0648	S02	W59	.859	16424	14.8	36	1N				190	3.7	EGHJKV	
CULG	19	0612	0617	0647	S02	W59	.859	16424	14.8	35	1N		C	0617	220	4.2	HG	
ABST	19	0615	0616	0648	S03	W60	.868	16424	14.8	33	1N		C	0616	157	3.3	EJKV	

Hα SOLAR FLARES

NOVEMBER 1979

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS		MEASUREMENTS			REMARKS	
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX LON. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONF.	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.		
928 ABST	19	0619	0621	0637	N33	W20	.586	16426	17.8	18	?N		C	0621	175	2.3	EJ	ZX
	IMP.1 NO 3 PURP			CULG														
929 ABST	19	0737	0738	07390	N14	W45	.718	16425	15.9	20	-F		P	0738	87	1.3	DV	ZX
930 CULG	19	0744	0746	0754	S33	W39	.778	16433	16.4	10	-F		C	0746	30	.5	T	ZX
931 ABST	19	0757	0809	0817	N32	W23	.597	16426	17.6	20	-N		C	0809	87	1.1	EJ	ZX
GRP79932	19	0816+2	0819+2	0845	S06	W68	.930	16422	14.2	29	1N				110		EJU	
ABST	19	0815	0819	08340	S06	W69	.936	16422	14.2	180	1N		C	0819	131		EJ	
TELV	19	0818	0821	0845	S07	W67	.924	16422	14.3	27	1N	3			98		U	
933 ABST	19	0829	0830	0833	N25	E28	.576	16437	21.5	4	-F		C	0830	87	1.1	J	ZX
GRP79934	19	0844+1	0847+0	0911	S01	W59	.858	16424	14.9	27	-N						D	
ABST	19	0844	0847	0913	S01	W60	.867	16424	14.9	19	1F		C	0847	114	2.5	D	
TELV	19	0845	0847	0919	S02	W58	.849	16424	15.0	34	-B	3			41	.8		
935 TELV	19	1057	1059	11110	S32	W30	.703	16433	17.2	140	-B	2			82	1.0	TW	ZX
936 ATHN	19	1155E	1156	12360	N32	W85	.995	16419	13.1	410	-B	1		1156	23	2.3		ZX
937 HUAN	19	1334		14050	S15	E54	.831	16441	23.6	310	-F	1	P					ZX
938 HUAN	19	1357		14050	S32	W45	.817	16433	16.2	280	-F	1	P	1356	30	.5		ZX
	19	1405	1408	NO FLARE PATROL														
	19	1418	1421	NO FLARE PATROL														
	19	1457	1511	NO FLARE PATROL														
	19	1526	1533	NO FLARE PATROL														
GRP79939	19	1533E	1536	16100	N31	W28	.620	16426	17.5	37	-N						U	
HOLL	19	1533E	1536	16100	N31	W29	.637	16426	17.5	370	-N	3	C		45		U F	
HUAN	19	1543E		15470	N29	W27	.601	16426	17.6	40	-F	1	P	1543	20	.3	D	
GRP79940	19	1915+4	1918+6	1939	N11	W65	.906	16421	14.9	24	-N				40	1.0		
HOLL	19	191E	1924	1945	N09	W65	.906	16421	14.9	30	1N	3	C		118		F	
BIGB	19	1916	1919	1942	N13	W68	.927	16421	14.7	26	-B		C	1918	40			
PALE	19	1917	1923	1935	N12	W66	.914	16421	14.9	18	-F	3	C		38		DE	
HUAN	19	1919		1935	N11	W65	.906	16421	14.9	16	-F	1	C				E	
GRP79941	19	1953+8	2003	2018	S33	W42	.800	16433	16.7	15	-N				25	.4		
HUAN	19	1953		2015	S34	W42	.806	16433	16.7	12	-F	1	C	2001	30	.5		
BIGB	19	2001	2003	2011	S32	W43	.802	16433	16.6	10	-B		C	2003	20	.3		
GRP79942	19	2022+3	2025	2052	S32	W46	.824	16433	16.4	30	-N				45	.8	E	
BIGB	19	2022	2025	2052	S32	W47	.831	16433	16.3	30	-B		C	2025	40	.5		
HUAN	19	2025		20420	S33	W45	.822	16433	16.5	170	-N	1	P	2038	45	.8	E	
GRP79943	19	2258+0	2259+2	2318	S32	W47	.831	16433	16.4	19	-N				30	.5		
BIGB	19	2258	2259	2310	S32	W47	.831	16433	16.4	12	-B		C	2259	30	.5		
PALE	19	2258	23010	2316	S32	W48	.839	16433	16.4	8	-N	3	C		32		DE	
GRP79944	19	2339	2340	0008	N31	W31	.655	16426	17.7	29	-F							
PALE	19	2339	2340	00110	N31	W33	.673	16426	17.5	320	-F	3	C		48		F	
VORO	19	2350E		0004	N31	W29	.637	16426	17.8	140	-F		P	2352	134	1.8	E	
GRP79945	20	0142+8	0144	0206	N23	E17	.446	16437	21.3	24	-N						E	
			0152															
VORO	20	0142	0144	0212	N23	E16	.437	16437	21.3	30	-N		C	0144	125	1.4	E	
YUNN	20	0150	0152	0159	N24	E18	.467	16437	21.4	9	-N		C		94	1.1		
946 YUNN	20	0150	0151	0159	S30	W50	.844	16433	16.3	9	-N		C		47	.8		ZX
GRP79947	20	0349+5	0359+1	0411	N33	W32	.681	16426	17.8	22	-N							
YUNN	20	0349	0359	0415	N32	W31	.664	16426	17.8	16	1N		C		161	2.1		
PURP	20	0354	0400	0416	N34	W34	.705	16426	17.6	22	-N		C					
948 YUNN	20	0415	0419	0428	S29	W49	.832	16433	16.5	13	-N		C		80	1.4		ZX
949 YUNN	20	0418	0419	0428	N32	W36	.708	16426	17.5	2	-N		C		79	1.1		ZX
950 YUNN	20	0509	0524	0525	S30	W50	.844	16433	16.5	16	-F		C		94	1.7		ZX

Hα SOLAR FLARES

NOVEMBER 1979

OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX LON. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONF.	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
GRP79951	28	0603+6	0610+6	0626	N32	W33	.682	16426	17.8	23	-N				130	1.8	EZ
ABST	28	0603E	1610	0622	N31	W33	.674	16426	17.8	190	1N		P	0610	244	3.4	EZ
PURP	28	0608	0616	0632	N34	W35	.713	16426	17.6	24	1N		C				
MITK	28	0609	0611	0620	N32	W33	.682	16426	17.8	11	1B		C	0611	150	2.1	E
NANI	28	0612E	0615U	0627D	N29	W33	.659	16426	17.8	15D	-N	3	C		109		F
YUNN	28	0615E	1615	0630	N33	W32	.681	16426	17.9	15D	-N		C		110	1.5	
ISTA	28	0615E		0624	N33	W32	.681	16426	17.9	9D	-F		P				E
GRP79952	28	0729+1	0731+0	0744	S31	W52	.862	16433	16.4	15	-N				90	1.8	DV
CULG	28	0729	0731	0744	S31	W52	.862	16433	16.4	15	-N		C	0731	80	1.5	T
ABST	28	0730	0731	0744	S32	W52	.866	16433	16.4	14	1F		C	0731	105	2.2	DV
GRP79953	28	0732+1	0737+2	0748	S05	W89	1.000	16422	13.6	16	-N				60		AD
CULG	28	0732	0737	0750	S05	W88	1.000	16422	13.7	18	-N		C	0737	40		
ABST	28	0733	0739	0745	S05	W90	1.000	16422	13.6	12	1F		C	0739	67		AD
954 HTPR	28	1036	1036	1039	S15	E58	.865	16443	24.8	3	-F		C	1036	10	.2	ZX
955 HTPR	28	1040	1057	1158	N27	E42	.734	16446	23.6	78	-N		C	1057	78	.9	ZX
GRP79956	28	1045+2	1055+5	1155	N28	E15	.492	16437	21.6	70	-N				90	1.0	E
MONT	28	1045	1100	1100D	N28	E16	.499	16437	21.6	15D	-N		C	1100	100		E
CATA	28	1045	1055	1155	N28	E15	.492	16437	21.6	70	-N	2	C	1055	84	1.0	
957 HTPR	28	1240	1245	1330	N30	W35	.685	16426	17.9	20	-F		C	1245	70	.9	E ZX
	28	1402	1519	NO FLARE PATROL													
GRP79958	28	1705E		1715D	S34	W54	.885	16433	16.7	9	-F						F
HOLL	28	1706E	1707U	1717D	S35	W54	.889	16433	16.7	10	-N	2	C		45		F
HUAN	28	1707E		1715D	S34	W54	.885	16433	16.7	8D	-F	1	P				
GRP79959	28	1736+3		1745D	S32	W56	.892	16433	16.5	9	-N						D
HUAN	28	1736		1745	S34	W54	.885	16433	16.7	9	-F	1	C				D
BIGB	28	1739	1747	1753	S30	W59	.905	16433	16.3	74	-B		C	1747	70	1.4	
960 BIGB	28	1858	1859	1915	S32	W47	.831	16433	17.3	17	-B		C	1859	40	.6	ZX
961 CULG	28	1950E	1954	2002	S31	W59	.907	16433	16.4	12D	-N		C	1954	80	1.8	T ZX
962 CULG	28	2020	2027	2046	S38	W53	.893	16433	16.9	26	?F	*	C	2027	140	3.1	ZX
	IMP.1 NO 1 BIGB																
963 CULG	28	2030	2044	2233	N19	E28	.525	16438	23.0	123	-F		C	2044	100	1.2	ZX
964 CULG	28	2031	2043	2051	N33	W41	.756	16426	17.8	20	-F		C	2043	40	.6	ZX
GRP79965	28	2123+1	2126+3	2155	S33	W55	.883	16433	16.8	32	-N				40	.9	
CULG	28	2043	2049	2232	S32	W58	.904	16433	16.5	109	-N	*	C	2049	80	1.8	T
HOLL	28	2123	2129	2142	S36	W56	.903	16433	16.7	19	-N	*	C		49		F
PALE	28	2124	2128	2138	S34	W55	.892	16433	16.8	14	-N	*	C		29		DS
BIGB	28	2124	2126	2207	S33	W47	.835	16433	17.4	43	-B	*	C	2126	50	.8	
966 BIGB	28	2126	2129	2131	N14	W67	.921	16425	15.9	5	-N		C	2129	30		ZX
967 BIGB	28	2126	2131	2137	N13	W68	.999	16421	14.3	11	-N	*	C	2131	20		ZX
GRP79968	28	2234+2	2236+1	2246	S33	W57	.901	16433	16.7	12	-N						
BIGB	28	2234	2237	2251	S33	W58	.906	16433	16.6	17	-B		C	2237	90	1.1	
HOLL	28	2236	2236	2241	S34	W57	.903	16433	16.7	5	-F	3	C		26		
969 PALE	28	2303	2305	2306	S37	W56	.895	16433	16.8	3	-F	3	C		22		F ZX
970 CULG	28	2354	2401	0200	N18	E27	.512	16438	23.0	125	?F		C	2401	840	9.6	SFI ZX
	IMP.2 NO 1 PALE																
971 CULG	21	0008	0016	0026	S21	E22	.524	16439	22.7	18	-N		C	0016	30	.4	ZX
972 CULG	21	0044	0046	0053	N32	W47	.802	16426	17.5	9	-F		C	0046	60	1.0	ZX
973 CULG	21	0051	0053	0059	S14	E51	.804	16443	24.9	8	-N		C	0053	80	1.4	ZX
974 PALE	21	0117	0121	0125	N31	W46	.789	16426	17.6	8	-F	3	C		21		F ZX
975 CULG	21	0154	0156	0206	S16	E51	.804	16443	24.9	12	-N		C	0156	70	1.2	ZX
976 CULG	21	0357	0407	0440	S15	E50	.795	16443	24.9	43	-N		C	0407	80	1.4	H ZX

Hα SOLAR FLARES

NOVEMBER 1979

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS	
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONF.	TYPE	TIME UT	MEAS. AREA Mil. of Disk	CORR AREA Sq. Deg.		
977 CULG	21	0412	0418	0430	S31	W61	.918	16433	16.6	18	1N		C	0418	120	2.8	T	ZX
	21	0451	0457	NO FLARE PATROL														
	21	0458	0500	NO FLARE PATROL														
978 CATA	21	0720E	0720	0725	S38	W58	.919	16433	17.0	50	-N	2	P	0720	28			ZX
979 ABST	21	0739E	0742	0753	N29	W69	.937	16425	16.1	140	?F		P	0742	157		EG	ZX
	IMP.1 NO : CATA																	
GRP79980	21	0740	0748	0759	S18	E20	.472	16439	22.8	19	-F						EJ	
			0754															
ABST	21	0740	0748	0753	S17	E20	.462	16439	22.8	13	-F		C	0748	166	1.9	EJ	
ABST	21	0751	0754	0759	S20	E20	.494	16439	22.8	8	-F		C	0754	157	1.8	E	
981 ABST	21	0823	0824	0828	S18	E18	.451	16439	22.7	5	-F		C	0824	96	1.1	OV	ZX
982 MONT	21	0835	0838	0844	S33	W59	.912	16433	16.9	9	-F		C	0838	60		E	ZX
GRP79983	21	0851+4	0858+6	0910	N27	E04	.425	16437	21.7	19	-F						EK	
HTPR	21	0851	0858	0910	N26	E04	.409	16437	21.7	19	-F		C	0858	40	.4	E	
ABST	21	0852	0904	0912D	N27	E04	.425	16437	21.7	200	-F		P	0904	157	1.8	EK	
MONT	21	0854	0858	0907	N28	E04	.440	16437	21.7	13	-F		C	0858	60		E	
CATA	21	0855	0900	0905D	N27	W04	.425	16437	21.1	100	-N	2	P	0900	112	1.3		
984 HTPR	21	0912	0916	0925	S17	E20	.462	16439	22.9	13	-F		C	0921	30	.3	E	ZX
GRP79985	21	1007+3	1010+1	1020	S17	E17	.438	16439	22.7	13	-N						E	
HTPR	21	1007	1011	1020	S18	E17	.441	16439	22.7	13	-N		C	1011	30	.3	E	
CATA	21	1010	1010	1020	S17	E17	.438	16439	22.7	10	-N	2	C	1010	84	1.0		
986 HTPR	21	1217	1218	1240	N23	W02	.357	15437	21.4	23	-F		C	1218	40	.4	E	ZX
987 HOLL	21	1545	1626	1646	S24	E24	.574	16442	23.5	60	-F	3	C		73			ZX
GRP79988	21	1604+0	1606+0	1638	S34	W06	.957	16433	16.6	34	-N						F	
HOLL	21	1604	1605	1639	S35	W07	.954	16433	16.6	35	1N	3	C				F	
BIGB	21	1604	1604	1638	S33	W70	.964	16433	16.4	32	-B		C	1606	40			
HUAN	21	1614E		1615D	S34	W68	.957	15433	16.6	10	-F	1	P					
989 HOLL	21	1805	1807	1826	N08	W72	.959	16425	16.4	21	-F	3	C					ZX
990 HOLL	21	1825	1827	1830	S16	E13	.378	16439	22.7	4	-F	3	C		25			ZX
991 CULG	21	2003	2011	2022	S18	E11	.389	16439	22.7	19	?N		C	2011	240	2.6	FT	ZX
	IMP.1 NO : BIGB HOLL PALE																	
992 CULG	21	2022	2028	2039	N38	W71	.960	16426	16.5	17	-F		C	2028	30		G	ZX
993 CULG	21	2024	2026	2036	S32	W69	.959	16433	16.7	12	-F		C	2026	60			ZX
994 CULG	21	2101	2104	2120	N23	E20	.477	15446	23.4	19	-F		C	2104	100	1.2		ZX
995 CULG	21	2119	2120U	2128D	N26	W05	.412	16437	21.5	90	-N		P	2120	150	1.8		ZX
996 BIGB	21	2140	2158	2207	S34	W70	.965	16433	16.7	18	-B		C	2158	30			ZX
GRP79997	21	2223+2	2226+4	2250	S17	E11	.375	16439	22.8	27	-N						FH	
BIGB	21	2223	2226	2251	S16	E09	.346	16439	22.5	28	-B		C	2226	50	.8		
PALE	21	2225	2230	2249	S18	E14	.413	16439	23.0	24	-N	3	C		151		F H	
	22	0323	1443	NO FLARE PATROL														
	22	0504	0511	NO FLARE PATROL														
998 CULG	22	0604	0612	0627	S32	W78	.989	16433	16.4	23	?F		C	0612	80			ZX
	IMP.1 NO : TACH ABST																	
GRP79999	22	0657+8	0703	0726	S15	W61	.889		17.7	29	-F						EGH	
			0710+1															
CULG	22	0657	0703	0729	S15	W61	.889		17.7	32	1N		C	0703	110	2.3	GH	
ABST	22	0705	0711	0723	S17	W61	.892		17.7	18	-F		C	0711	87		E	
MANI	22	0709E	0710	0717D	S13	W57	.853		18.0	80	-F	3	C		15			
0 MANI	22	0703E	0703U	0717D	S28	E25	.622	16442	24.2	140	-F	3	C		30			ZX
1 CULG	22	0711	0712	0717	S31	W87	1.000	16433	15.8	6	-F	*	C	0712	28			ZX

Hα SOLAR FLARES

NOVEMBER 1979

OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IMPOR-TANCE	OBS.		MEASUREMENTS			REMARKS	
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX LON. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONG.	TYPE	TIME UT	MEAS AREA Mill of Disk	CORR AREA Sq. Deg.		
GRP80002	22	0727+3	0738+3	0740	S32	W82	.995	16433	16.2	13	1N				120		ADJ	
CULG	22	0727	1733	0750	S33	W85	.999	16433	15.9	23	1N	*	C	0733	150			
ABST	22	0729E	0731	0739	S32	W80	.992	16433	16.3	10D	1N	*	P	0731	87		DJ	
ISTA	22	0729		0740	S32	W85	.998	16433	15.9	11	-N	*	P				A	
CATA	22	0730	1738	0740	S32	W80	.992	16433	16.3	10	1B	*	C	0738	112			
GRP80003	22	0738+3	0744	0800	S17	E07	.346	16439	22.8	22	-F						J	
ABST	22	0738	0744	0800	S17	E07	.346	16439	22.8	22	-N		C	0744	140	1.5	FJ	
ISTA	22	0741		0800	S17	E07	.346	16439	22.8	19	-F		P				E	
4 ISTA	22	0805		0816	S27	E24	.603	16442	24.1	11	-F		P				D	ZX
5 ABST	22	0855	0857	0907	S27	E24	.603	16442	24.2	12	-F		C	0857	87	1.1	E	ZX
6 MONT	22	1128	1141	12130	S25	E22	.565	16442	24.1	450	-N		C	1141	180		E	ZX
7 HTPR	22	1244	1246	1255	N22	W14	.409	16437	21.5	11	-F		C	1246	20	.2		ZX
	22	1310	1312	NO FLARE PATROL														
8 HTPR	22	1338	1354	1400	S17	E03	.330	16439	22.8	22	-F		C	1354	30	.3	E	ZX
9 HOLL	22	1445	1448	1521	N18	W67	.921	16429	17.6	36	-F	2	C		33			ZX
10 BIGB	22	1532	1534	1547	N32	W68	.942	16426	17.5	15	-B		C	1534	120			ZX
GRP80011	22	1535+1	1538+0	1547	N11	W68	.927	16429	17.5	12	-N				35			
HOLL	22	1535	1538	1548	N09	W67	.920	16429	17.6	13	-F	2	C		39			
BIGB	22	1536	1539	1545	N13	W70	.940	16429	17.4	9	-B		C	1538	30			
GRP80012	22	1643+0	1644+1	1657	N31	W65	.925	16426	17.8	14	-N				25			
BIGB	22	1643	1644	1654	N33	W65	.926	16426	17.8	11	-B		C	1644	20			
HOLL	22	1643	1645	1659	N30	W65	.924	16426	17.6	16	-F	3	C		32			
GRP80013	22	1820+1	1821+0	1827	N33	W67	.938	16426	17.7	7	-N				30			
BIGB	22	1820	1821	1827	N34	W68	.944	16426	17.7	7	-B		C	1821	30			
HOLL	22	1821	1821	1826	N32	W67	.937	16426	17.7	5	-F	3	C		26			
14 HOLL	22	1832	1848	1910	S19	E80	.359	16439	22.8	28	-F	3	C		36		F	ZX
15 PALE	22	1938	1939	1942	N13	W70	.940	16429	17.6	4	-F	3	C		13		F	ZX
16 CULG	22	2016	2030	2048	S17	W03	.330	16439	22.6	32	-F		C	2030	120	1.3	H	ZX
GRP80017	22	2036+0	2036+2	2042	N32	W67	.937	16426	17.8	6	-F				30			
CULG	22	2036U	2036	2043	N33	W68	.943	16426	17.8	7D	-N		C	2036	40			
HOLL	22	2035	2038	2041	N31	W66	.930	16426	17.9	5	-F	3	C		17			
18 HOLL	22	2251	2251	2311	S16	W02	.311	16439	22.8	20	-F	3	C		31			ZX
	22	2352	0008	NO FLARE PATROL														
	23	0013	0019	NO FLARE PATROL														
19 CULG	23	0131	0142	0218	S17	W04	.331	16439	22.8	37	1F		C	0142	200	2.1	L	ZX
	23	0313	0320	NO FLARE PATROL														
20 PURP	23	0343	0343	0345	S14	E33	.593	16443	25.6	?	-N		C					ZX
21 CULG	23	0447	0449	0458	S15	E32	.586	16443	25.6	11	-F		C	0449	60	.7		ZX
GRP80022	23	0501+5	0506	0522	S17	W07	.344	16439	22.7	21	-F						L	
			0518															
CULG	23	0501	0518	0531	S17	W09	.357	16439	22.5	30	-N		C	0518	100	1.1	L	
PURP	23	0506	0506	0512	S17	W06	.339	16439	22.8	6	-F		C					
23 CULG	23	0511	0514	0527	S25	E13	.496	16442	24.2	16	-N		C	0514	80	.9		ZX
24 CULG	23	0527	0530	0537	S15	E33	.599	16443	25.7	10	-F		C	0530	40	.5		ZX
25 PURP	23	0619E	0619	0619D	S17	W04	.331	16439	23.0		-F		P					ZX
GRP80026	23	0731E		0737	S17	W08	.350	16439	22.7	6	-F							
HTPR	23	0731E		0735D	S17	W10	.364	16439	22.6	4D	-N		C	0731	40	.4		
PURP	23	0732E	0732	0737	S18	W07	.360	16439	22.8	5D	-F		C					

Hα SOLAR FLARES

NOVEMBER 1979

	OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
		DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMR DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Mill of Disk	CORR AREA Sq. Deg.	
GRP80027		23	0759+1	0802+1	0842	N24	W27	.562	16437	21.3	43	-F				45	.8	D
	HTPR	23	0759	0802	0835	N24	W27	.562	16437	21.3	36	-N		C	0802	40	.4	
	MONT	23	0800	0803	0827	N25	W26	.560	16437	21.4	27	-F		C	0803	50		D
	WEND	23	0815E		0849	N24	W27	.562	16437	21.3	340	-F		P	0815	100	1.3	
	ABST	23	0843E	0844	0916	N24	W27	.562	16437	21.3	230	-F		P	0844	87	1.1	D
GRP80028		23	0830	0835 0844	0859	N17	W06	.279	16438	22.9	29	-F						G
	HTPR	23	0830	0835	0900	N17	W06	.279	16438	22.9	30	-F		C	0835	20	.2	E
	ABST	23	0843E	0844	0858	N17	W07	.285	16438	22.8	150	-F		P	0844	70	.8	DG
GRP80029		23	0904+2	0908+0	0914	N33	W68	.943	16426	18.3	10	-F						
	WEND	23	0904	0908	0914	N33	W67	.938	16426	18.4	10	-N		C	0908	70		
	HTPR	23	0905	0908	0913	N33	W69	.948	16426	18.2	7	-F		C	0908	20	.5	
GRP80030		23	0941+2	0943+1	0958	S17	W18	.364	16439	22.7	9	-N				40	.4	D
	HTPR	23	0941	1943	0958	S17	W10	.364	16439	22.7	9	-N		C	0943	40	.4	
	MONT	23	0942	1943	0946	S17	W11	.371	16439	22.6	4	-F		C	0943	50		D
	WEND	23	0943	0944	0953	S17	W10	.364	16439	22.7	10	-N		C	0944	25	.3	
31	HTPR	23	1029	1033	1040	S17	W12	.380	16439	22.5	11	-F		C	1033	20	.2	E ZX
GRP80032		23	1209+3	1211+5	1227	N34	W68	.944	16426	18.4	18	1N				120		E
	WEND	23	1209	1216	1233	N34	W67	.940	16426	18.5	24	1N		C	1216	160		
	HTPR	23	1209	1211	1220	N34	W70	.953	16426	18.3	11	-B		C	1211	80		E
GRP80033		23	1303	1310+4	1348	S16	W11	.358	16439	22.7	45	-N						E
	HTPR	23	1303	1314	1345	S17	W13	.388	16439	22.6	42	-N		C	1314	70	.7	E
	LOCA	23	1310E	1310	1350	S16	W10	.349	16439	22.8	400	1N		V	1310	387	4.2	B
34	HTPR	23	1327	1334	1350	S17	E27	.540	16443	25.6	23	-F		C	1334	40	.4	E ZX
GRP80035		23	1340	1350 1410	1440	S20	E06	.386	16442	24.0	60	-F						E
	HTPR	23	1340	1350	1403	S21	E09	.413	16442	24.2	23	-F		C	1350	10	.1	
	HTPR	23	1359	1410	1440	S20	E04	.379	16442	23.9	41	-F		C	1410	30	.3	E
36	HTPR	23	1401	1405	1420	S16	W13	.375	16439	22.6	19	-F		C	1405	20	.2	ZX
		23	1513	1555	NO FLARE PATROL													
37	BIGB	23	1647	1649	1716	S25	E02	.454	16442	23.8	29	-F		C	1649	60	.6	ZX
GRP80038		23	1750+6	1757 1818	1836	S24	E02	.438	16442	23.9	46	-F						F
	BIGB	23	1750	1757	1838	S25	E03	.455	16442	24.0	48	-N		C	1757	40	.4	
	PALE	23	1756	1818	1834	S24	E02	.438	16442	23.9	38	-F	3	C		29		F
39	PALE	23	1939	1941	1959	S25	E01	.453	16442	23.9	20	-F	3	C		29		F ZX
GRP80040		23	2142+0	2143+3	2156	N14	W32	.557	16449	21.5	14	-N				80	1.0	F
	CULG	23	2142	2145	2156	N14	W34	.584	16449	21.4	14	1N		C	2145	210	2.5	
	BIGB	23	2142	2143	2217	N15	W32	.562	16449	21.5	25	-N		C	2143	70	.9	
	PALE	23	2142	2146	2152	N13	W31	.539	16449	21.6	10	-F	3	C		82		F
GRP80041		23	2155+7	2157 2205	2220	S24	W02	.438	16442	23.8	24	-F						
	PALE	23	2156	2157	2218	S25	E08	.453	16442	23.9	14	-F	3	C		27		DE
	BIGB	23	2203	2205	2229	S24	W04	.442	16442	23.6	26	-N		C	2205	70	.7	
42	BIGB	23	2212	2214	2245	S15	E23	.475	16443	25.7	33	-F		C	2214	40	.4	ZX
43	BIGB	23	2212	2214	2218	N32	W88	.999	16426	17.3	6	-B		C	2214	40		A ZX
44	BIGB	23	2218	2220	2230	S16	W16	.405	16439	22.7	12	-N		C	2220	60	.6	ZX
45	CULG	23	2237	2243	2254	N25	W79	.985	16426	18.8	17	-F		C	2243	30		ZX
GRP80046		23	2305>9	2327+3	2344	N14	W33	.570	16449	21.5	39	-N						
	CULG	23	2305	2327	2343	N14	W33	.570	16449	21.5	38	-N		C	2327	160	1.9	
	BIGB	23	2322	2330	2340	N15	W33	.575	16449	21.5	220	-N		P	2330	70	.9	
47	CULG	24	0005	0009	0017	S16	E12	.365	16443	24.9	12	-F		C	0009	30	.3	ZX

Hα SOLAR FLARES

NOVEMBER 1979

OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IMPOR-TANCE	OBS.		MEASUREMENTS			REMARKS	
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX LONG. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONG	TYPE	TIME UT	MEAS. AREA Mill of Disk	CORR AREA Sq. Deg.		
GRP80048	24	0042	0050+5	0100	N35	W80	.987	16426	18.0	18	1N							
CULG	24	0042	0050	0102	N36	W80	.987	16426	18.0	20	1N		C	0050	90			
PALE	24	0051E	0052	0054	N31	W78	.981	16426	18.2	3D	-F	3	C		28		DE	
PURP	24	0052	0055	0100	N35	W80	.987	16426	18.0	8	1N		C					
49 CULG	24	0257	0301	0316	N36	W81	.989	16426	18.0	19	?N		C	0301	100			ZX
	IMP.1 NO 1 PURP																	
50 CULG	24	0310	0315	0331	S16	W21	.459	16439	22.6	21	-F		C	0315	40	.5	T	ZX
51 CULG	24	0401	0401	0423	S28	W07	.508	16442	23.6	22	-F		C	0401	40	.5		ZX
52 CULG	24	0410	0415	0420	N15	W36	.614	16449	21.5	10	-N		C	0415	80	1.0		ZX
53 CULG	24	0556	0604	0621	N15	W38	.639	16449	21.4	25	-F		C	0604	60	.8		ZX
GRP80054	24	0740	0748	0808	N13	W38	.633	16449	21.5	28	-F						E	
HTPR	24	0740	0748	0815	N13	W38	.633	16449	21.5	25	-F		C	0748	20	.3		
ISTA	24	0800E		0810D	N14	W38	.636	16449	21.5	10D	-N		P				E	
GRP80055	24	0919+3	0924+0	0930	S23	W08	.438	16442	23.8	11	-F				35	.4	E	
HTPR	24	0919	0924	0931	S24	W08	.453	16442	23.8	12	-F		C	0924	20	.2	E	
MONT	24	0922	0924	0928	S23	W08	.438	16442	23.8	6	-F		C	0924	50		E	
GRP80056	24	1004+1	1008 1018	1026	N34	W85	.996	16426	18.0	22	-N							
HTPR	24	1004	1008	1025	N34	W85	.996	16426	18.0	21	-N		C	1008	40			
MONT	24	1005	1018	1026	N35	W86	.997	16426	18.0	21	-N		C	1018	70			
57 HTPR	24	1015	1017	1026	N23	W15	.434	16446	23.3	11	-F		C	1017	20	.2	E	ZX
GRP80058	24	1100+5	1106+1	1125	N14	W39	.648	16449	21.5	25	-F							
HTPR	24	1100	1106	1125	N13	W38	.633	16449	21.5	25	-F		C	1106	30	.4		
MONT	24	1105	1107	1120D	N15	W41	.676	16449	21.4	15D	-N		C	1107	100			
59 HTPR	24	1224	1225	1230	N17	E07	.287	16453	25.0	6	-F		C	1225	40	.4	E	ZX
60 KANZ	24	1310		1337D	N16	W41	.679	16449	21.5	27D	-F	1						ZX
	24	1337	1344	NO FLARE PATROL														
	24	1357	1409	NO FLARE PATROL														
61 HTPR	24	1418	1420	1427	N17	E06	.281	16453	25.0		-F		C	1420	30	.3	E	ZX
GRP80062	24	1552+1	1556+4	1624	S14	W25	.491	16439	22.8	32	-F				60	.7		
HOLL	24	1552	1600	1631	S14	W25	.491	16439	22.8	39	-F	3	C		71		F	
BIGB	24	1553	1556	1617	S15	W24	.486	16439	22.9	24	-N		C	1556	60	.7		
HUAN	24	1558E		1608D	S14	W25	.491	16439	22.8	10D	-F	1	P	1558	60	.7	E	
63 BIGB	24	1612	1618	1639	N14	W44	.709	16449	21.4	27	-N		C	1618	40	.6		ZX
64 HOLL	24	1714	1717	1733	N17	E05	.275	16453	25.1	19	-F	3	C		27			ZX
65 BIGB	24	1730	1732	1748	N25	W19	.494	16446	23.3	18	-N		C	1732	30	.3	G	ZX
GRP80066	24	1755+0	1758+5	1825	N11	E46	.726	16450	28.2	31	-N				50	.7		
BIGB	24	1755	1758	1834	N11	E46	.726	16450	28.2	39	-N		C	1758	50	.7		
HOLL	24	1755E	1802	1815D	N11	E46	.726	16450	28.2	10D	-B	3	C		87			
PALE	24	1802E	1804	1813	N11	E44	.702	16450	28.1	11D	-N	4	C		31		DE	
HOLL	24	1802	1802	1825	N11	E46	.726	16450	28.2	24	-B	3	C		87			
67 BIGB	24	1841	1846	1855	N17	E02	.264	16453	24.9	14	-F		C	1846	70	.7		ZX
68 BIGB	24	1932	1939	1957	N13	E46	.730	16450	28.3	25	-N		C	1939	20	.3		ZX
GRP80069	24	2139+1	2145+2	2203	N18	E02	.261	16453	25.1	24	-F				40	.4		
BIGB	24	2139	2145	2159	N19	E02	.298	16453	25.1	20	-N		C	2145	40	.4		
CULG	24	2140	2147	2217	N18	E02	.281	16453	25.1	27	-F		C	2147	40	.4		
70 CULG	24	2154	2207	2246	S25	W17	.522	16442	23.6	52	-F		C	2207	80	.9		ZX
GRP80071	24	2244+2	2245+0	2258	N31	W90	1.000	16426	18.2	14	-N							
PALE	24	2244	2245	2314D	N31	W90	1.000	16426	18.2	20D	-F	3	C					
HOLL	24	2244	2245	2252	N31	W89	1.000	16426	18.3	8	-B	3	C					
MANI	24	2245E	2245U	2252D	N32	W90	1.000	16426	18.2	7D	-F	2	C					

Hα SOLAR FLARES

NOVEMBER 1979

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS	
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONF.	TYPE	TIME UT	MEAS. AREA Mill of Disk	CORR AREA Sq. Deg.		
GRP80072	24	2252+4	2257+3	2318	N12	E43	.692	16450	28.2	26	-F				60	.8	F	
CULG	24	2252	2300	2319	N13	E43	.695	16450	28.2	27	-N		C	2300	90	1.3		
HANI	24	2252E	2257	2318D	N12	E43	.692	16450	28.2	26D	-F	2	C		40			
HOLL	24	2252	2258	2315D	N11	E43	.690	16450	28.2	23D	-N	3	C		63			
PALE	24	2256	2257	2317	N12	E42	.680	16450	28.1	21	-F	3	C		40		F	
73 PURP	25	0412	0418	0441	S27	W14	.525	16442	24.1	29	-N		P					ZX
GRP80074	25	0639	0640+1	0702	N31	W90	1.000	16426	18.5	23	1N				120		ADJ	
ABST	25	0639	0641	0706	N30	W90	1.000	16426	18.5	29	1N		C	0641	96		ADJ	
CATA	25	0640E	0640	0655	N32	W90	1.000	16426	18.5	15D	2N	1	P	0640	140		A	
75 ABST	25	0647	0648	0706	N16	W86	.267	16453	24.8	19	-F		C	0648	87	.9	DV	ZX
76 ABST	25	0803	0803	0812	S24	W23	.560	16442	23.6	9	-N		C	0803	70	1.0	DJV	ZX
GRP80077	25	1003+2	1009+1 1016	1033	N11	E37	.614	16450	28.2	30	-B				110	1.4		
KANZ	25	1003	1009	1033	N10	E37	.612	16450	28.2	30	-B	1						
CATA	25	1005	1010	1030	N12	E37	.617	16450	28.2	25	1B	1	C	1010	168	2.2		
WEND	25	1011E		1033	N12	E37	.617	16450	28.2	22D	-N		C	1011	112	1.5		
ATHN	25	1015E	1016	1028D	N11	E43	.691	16450	28.7	13D	-B	1		1016	66	.9		
78 CATA	25	1115	1120	1155	S15	W82	.289	16443	25.3	40	-N	1	C	1120	84	.9		ZX
	25	1400	1432	NO FLARE PATROL														
	25	1540	1542	NO FLARE PATROL														
GPP80079	25	2019+1	2022	2034	S27	W20	.567	16442	24.3	15	-F				40	.5	E	
HUAN	25	2019E		2024D	S28	W19	.571	16442	24.4	5D	-F	1	P	2022	45	.6	E	
BIGB	25	2020	2022	2034	S26	W22	.572	16442	24.2	14	-N		C	2022	30	.3		
80 CULG	25	2126	2137	2150	S18	E72	.959	16455	1.3	24	-F		C	2137	60			ZX
GRP80081	25	2154+0	2155+1	2211	N14	W61	.879	16449	21.3	17	-N				50	1.1		
BIGB	25	2154	2155	2213	N13	W62	.886	16449	21.3	19	-B		C	2155	30	.7		
CULG	25	2154	2156	2219	N15	W60	.872	16449	21.4	15	-N		C	2156	70	1.5		
82 BIGB	25	2201	2202	2228	S15	W45	.738	16439	22.5	27	-N		C	2202	30	.4		ZX
83 CULG	25	2356	2358	0005	N15	W68	.929	16449	20.9	9	-F		C	2358	50	1.3		ZX
GRP80084	26	0019+4	0026+6	0130	S20	W40	.704	16439	23.0	71	-N						FLU	
CULG	26	0019	0032	0140	S20	W40	.704	16439	23.0	81	1N		C	0032	250	3.5	LF	
PALE	26	0023	0026	0128	S20	W40	.704	16439	23.0	57	-N	3	C		58		U F	
85 CULG	26	0346	0357	0421	N14	W63	.895	16449	21.4	35	-F		C	0357	60	1.4		ZX
86 ABST	26	0558	0608	0715D	N17	W17	.387	16453	25.0	77D	?N		P	0608	244	2.7	F	ZX
	IMP.1 NO : CULG TACH																	
87 ABST	26	0702E	0702	0707	S23	W37	.689	16442	23.5	5D	-F		P	0703	87	1.2	D	ZX
88 ABST	26	0718E	0720	0728	S28	W29	.651	16442	24.1	8D	-F		P	0720	87	1.3	D	ZX
89 ABST	26	0724	0730	0757	N17	W19	.411	16453	24.9	33	-F		C	0730	87	1.0	D	ZX
90 CULG	26	0756	0804	0815D	N15	W67	.923	16449	21.3	19D	?N		P	0804	88	2.0		ZX
	IMP.1 NO : CATA KANZ																	
GRP80091	26	0758+2	0805 0822	0834	N19	W16	.398	16453	25.1	36	-F							
KANZ	26	0758	0822	0834	N19	W16	.398	16453	25.1	36	-F	1						
CATA	26	0800	0805	0810D	N20	W16	.418	16453	25.1	10D	-N	2	P	0805	28	.3		
	26	0910	0936	NO FLARE PATROL														
	26	1014	1210	NO FLARE PATROL														
	26	1215	1226	NO FLARE PATROL														
	26	1231	1245	NO FLARE PATROL														
	26	1250	1313	NO FLARE PATROL														
	26	1325	1428	NO FLARE PATROL														
	26	1453	1504	NO FLARE PATROL														
	26	1511	1516	NO FLARE PATROL														
92 BIGB	26	1602	1604	1627	S15	W55	.837	16439	22.5	25	-B		C	1604	30	.5		ZX

Hα SOLAR FLARES

NOVEMBER 1979

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS	
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.		
GRP80093	26	1850+2	1853+0	1908	S28	W33	.686	16442	24.3	18	-F				60	.8	E	
BIGB	26	1850	1853	19130	S27	W35	.697	16442	24.2	230	-N		P	1853	90	1.1		
HUAN	26	1851E		19?8D	S2?	W33	.686	16442	24.3	17D	-F	1	P	1853	40	.6	E	
HOLL	26	1852	1853	1901	S28	W33	.686	16442	24.3	9	-F	3	C		40			
GRP80094	26	2003+7	2011+0	2016	S13	W24	.468	16443	23.8	13	-F				30	.3	D	
CULG	26	2003	2011	2023	S13	W24	.468	16443	25.0	20	-F		C	2011	80	.9		
HOLL	26	2010	2011	2016	S13	W24	.468	16443	25.0	6	-F	3	C		32			
HUAN	26	2011E		2014	S14	W24	.476	16443	25.8	30	-F	1	P	2012	25	.3	D	
95 CULG	26	2245	2247	2255	S12	E63	.899	16455	1.7	10	-F		C	2247	30	.7		ZX
96 CULG	27	0132	0145	0211	S15	W57	.856	16439	22.8	39	1F		C	0145	180	3.4		ZX
97 CULG	27	0138	0149U	0213	N18	W72	.953	16449	21.7	35	?F		C	0149	180			ZX
	IMP.1 NO : PALE																	
98 CULG	27	0522	0526	0544	N16	W34	.595	16453	24.7	22	-N		C	0526	120	1.5		ZX
99 CULG	27	0606	0614	0624	N16	W34	.595	16453	24.7	16	-F		C	0614	80	1.0		ZX
GRP80100	27	0647>9	0718	0814	N16	E05	.266	16448	27.7	??	1N						FILS	
			0742															
CULG	27	0647	0718	0735D	N18	E05	.297	16448	27.7	48D	1N		P	0718	330	3.5	SFIL	
PURP	27	0722	0742	0814	N14	E05	.234	16448	27.7	42	1N		P					
101 CATA	27	0845	0850	09000	N10	E39	.639	16452	30.3	150	-N	1	P	0850	84	1.1		ZX
	27	0920	0930	NO FLARE PATROL														
	27	1410	1416	NO FLARE PATROL														
GRP80102	27	1552+0	1553	1612	S25	W54	.853	16442	23.6	20	-F				30	.6		
HOLL	27	1552	1553	1616	S24	W54	.850	16442	23.6	24	-N	3	C		34			
HUAN	27	1552		1608	S26	W55	.863	16442	23.5	16	-F	1	C	1553	30	.6		
103 HUAN	27	1810		18450	N12	E36	.605	16452	30.5	350	-F	1	P					ZX
104 BIGB	27	1838	1846	1855	S13	W39	.660	16443	24.9	17	-F		C	1946	40	.5		ZX
GRP80105	27	2135+2	2138+5	2200	S29	W50	.835	16442	24.1	25	-N				35	.6		
CULG	27	2135	2138	2155	S28	W50	.831	16442	24.1	20	-N		C	2138	40	.7		
BIGB	27	2137	2143	2205	S30	W50	.839	16442	24.2	28	-?		C	2143	30	.5		
105 PALE	28	0040	0041	0044	S2?	W60	.896	16442	23.5	4	-F	3	C		17		F	ZX
107 CULG	28	0559	0603	0610	S16	W35	.625	16443	25.6	11	-F		C	0603	70	.9		ZX
GRP80108	28	1034+2	1039	1107	S14	W48	.765	16443	24.8	33	-F						E	
			1052															
MONT	28	1034	1039	1058	S14	W49	.776	16443	24.8	24	-F		C	1039	50		E	
KANZ	28	1036	1052	1116	S14	W47	.755	16443	24.9	40	-F	1						
109 HUAN	28	1319		1324	S1?	W47	.758	16443	25.0	?	-F	1	C					ZX
110 HUAN	28	1353		14190	S16	W48	.771	16443	25.0	260	-F	1	P					ZX
111 BIGB	28	1718	1722	1803	S17	W50	.794	16443	25.0	45	-N		C	1722	80	1.3		ZX
GRP80112	28	1828>9	1923	1928	S16	W50	.791	16443	25.0	60	-F							
HUAN	28	1828E		19280	S18	W50	.797	16443	25.0	60D	-F	1	P	1857	20	.4		
HOLL	28	1917	1923	1927	S15	W51	.799	16443	25.0	10	-N	3	C		20			
113 HOLL	28	1950	1951	2000	S1?	W51	.799	16443	25.0	10	-N	3	C		22			ZX
114 CULG	28	2022	2025	2032	S15	W53	.818	16443	24.9	10	-N		C	2025	60	1.0	T	ZX
115 CULG	28	2255	2258	2319	S16	W54	.829	16443	24.9	14	-N		C	2258	60	1.0	T	ZX
116 BIGB	28	2333	2339	23480	S15	W54	.827	16443	24.9	150	?N		P	2339	120	2.1		ZX
	IMP.1 NO : CULG																	
117 CULG	28	2349	2354	0010	S15	W73	.961	16441	23.5	21	1F		C	2354	60			ZX
	29	0014	0016	NO FLARE PATROL														

Hα SOLAR FLARES

NOVEMBER 1979

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS	
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONF.	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.		
GRP80118	29	0025+7	0025	0039	S16	W53	.820	16443	25.0	14	-N							
PALE	29	0025E	0025U	0034	S16	W54	.829	16443	25.0	9D	-F	3	C		21		DE	
PURP	29	0032	0042	0043	S16	W53	.820	16443	25.0	11	1N		C					
119 CULG	29	0623	0624	0627	S15	W59	.871	16443	24.8	4	-F		C	0624	83	1.6	T	ZX
120 CULG	29	0641	0644	0651	S24	E60	.894	16459	3.8	10	-F		C	0644	60	1.4		ZX
GRP80121	29	0727E	0758	0830D	S15	W58	.862	16443	25.0	63	1F						FK	
CULG	29	0727U	0758	0815D	S15	W59	.871	16443	24.9	48D	1F		P	0758	110	2.2	KTF	
WEND	29	0746E		0830D	S15	W57	.854	16443	25.0	44D	1N		V		190	3.7		
KANZ	29	0819E		0827D	S14	W58	.861	16443	25.0	8D	-F	1						
122 HTPR	29	0855	0903	0920	N12	E09	.243	16452	30.0	25	-F		C	0903	20	.2	E	ZX
123 KANZ	29	1015	1020	1030	S24	W80	.989	16442	23.4	15	-N	1						ZX
124 KANZ	29	1020	1020	1027	S14	W61	.885	16443	24.9	7	-F	1						ZX
GRP80125	29	1055+5	1101+6	1116	S15	W60	.879	16443	25.0	21	-N				70	1.5		
KANZ	29	1055	1105	1117	S14	W60	.877	16443	25.0	22	-N	1						
HTPR	29	1058	1103	1106	S15	W64	.908	16443	24.7	8	-F		C	1103	40	.9		
WEND	29	1059	1101	1113	S15	W59	.871	16443	25.0	14	-N		C	1101	68	1.4		
CATA	29	1108	1105	1120	S16	W60	.880	16443	25.0	28	2B	1	C	1105	281	6.1		
ATHN	29	1105E	1107	1116D	S14	W59	.869	16443	25.0	130	-B	1		1107	66	1.2		
126 WEND	29	1154	1220	1234	S18	E56	.925	16459	4.4	40	-F		C	1220	62			ZX
GRP80127	29	1311+1	1315+2	1338	S19	E51	.809	16458	2.4	19	-F				30	.5	E	
HTPR	29	1311	1317	1334	S19	E50	.799	16458	3.3	23	-F		C	1317	20	.3	E	
KANZ	29	1311	1315	1329	S19	E51	.809	16458	3.4	18	-F	1					E	
HUAN	29	1312		1330	S17	E53	.822	16458	3.5	18	-F	1	C	1323	40	.7	E	
128 HUAN	29	1347E		1353D	S16	W63	.982	16443	24.8	6D	-F	1	P				E	ZX
129 HTPR	29	1353	1354	1356	S19	E50	.799	16458	3.3	3	-F		C	1354	20	.3	E	ZX
130 HUAN	29	1625E		1636D	S22	E76	.976	16465	5.4	11D	-F	1	P	1627	20		D	ZX
GRP80131	29	1638	1644	1659	S15	W66	.922	16443	24.7	21	-N				30		D	
BIGB	29	1638	1644	1659	S15	W66	.922	16443	24.7	21	-B		C	1644	30			
HUAN	29	1643E		1651D	S16	W66	.923	16443	24.7	8D	-F	1	P	1649	25		D	
GRP80132	29	2004+7	2008+4	2020	S20	W81	.990	16442	23.8	16	-F				50		A	
BIGB	29	2004	2008	2023	S18	W83	.994	16442	23.6	19	-N		C	2008	60		A	
HOLL	29	2008E	2009	2016	S19	W80	.988	16442	23.8	8D	-N	3	C					
CULG	29	2010	2012	2017	S21	W75	.972	16442	24.2	7	-F		C	2012	40			
RAMY	29	2011	2025	2032D	S21	W83	.994	16442	23.6	21D	-F	3	C					
133 CULG	29	2010	2016	2050U	S14	W68	.934	16443	24.7	40D	?F		C	2016	80		KT	ZX
	IMP.1 NO 1 HOLL BIGB RAMY																	
GRP80134	29	2050>9	2052 2120	2129	S22	E71	.956	16465	4.2	39	-N						FW	
CULG	29	2050	2052	2131D	S28	E70	.949	16465	5.1	41D	1N		P	2052	250	4.0	FW	
BIGB	29	2119	2120	2126	S25	E73	.967	16465	5.4	7	-N		C	2120	30			
GRP80135	29	2051+0	2052+0	2144	S19	E45	.750	16458	2.2	53	-B				130	1.9		
HOLL	29	2051	2052	2132	S16	E47	.760	16458	3.4	41	-B	3	C		111			
BIGB	29	2051	2052	2155	S19	E45	.750	16458	3.2	64	1B		C	2052	150	2.2		
CULG	29	2119	2122U	2122D	S24	E45	.770	16458	3.3	3D	1F		P	2122	80			
136 HOLL	29	2103	2103	2115	S14	E34	.601	16456	2.4	12	-F	3	C		33			ZX
137 CULG	29	2240	2249	2320	S14	W70	.945	16443	24.7	40	?F		C	2249	90			ZX
	IMP.1 NO 1 HOLL BIGB																	
138 PURP	30	0319	0319	0319D	S19	E42	.717	16458	3.3		-N		C					ZX
139 CULG	30	0621	0621	0623	S16	W72	.956	16443	24.9	2	?F		C	0621	60		V	ZX
	IMP.1 NO 1 PURP																	
GPP80140	30	0659+2	0703 0711	0717	S19	E40	.696	16458	2.3	18	-F							
CULG	30	0659	0703	0716	S19	E40	.696	16458	3.3	17	-F		C	0703	60	.8		
PURP	30	0701	0711	0718	S19	E40	.696	16458	3.3	17	-F		C					

Hα SOLAR FLARES

NOVEMBER 1979

OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IMPOR-TANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX LON. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONF.	TYPE	TIME UT	MEAS. AREA Mill of Disk	CORR. AREA Sq. Deg.	
141 KANZ	30	1031	1034	1038	S11	E25	.464	16456	2.3	7	-F	2					ZX
142 BIGB	30	1615	1617	1644	S11	E23	.436	16456	2.4	29	-N		C	1617	30	.3	ZX
143 BIGB	30	1703	1707	1725	S11	E23	.436	16456	2.4	22	-N		C	1707	30	.3	ZX
144 BIGB	30	1807	1808	1816	N20	E62	.894	16466	5.4	9	-N	3	C	1808	20	.4	ZX
145 BIGB	30	1923	1925	1938	N28	E22	.562	16471	2.5	15	-N	3	C	1925	20	.2	ZX
146 BIGB	30	1934	1935	1944	N12	W88	.234	16452	30.2	10	-N		C	1935	20	.2	ZX
147 PALE	30	2009	2012	2021	S16	E72	.956	16467	6.2	12	-F	3	C		20		F ZX
GRP80148	30	2023+2	2025+2	2035	S11	E21	.408	16456	1.4	12	-N				40	.4	
BIGB	30	2023	2025	2039	S11	E21	.408	16456	2.4	16	-N		C	2025	30	.3	
PALE	30	2025	2027	2031	S14	E22	.446	16456	2.5	6	-F	3	C		37		DE
CULG	30	2028E	2028U	2031D	S11	E21	.408	16456	2.4	30	-N		P	2028	120	1.3	
149 PALE	30	2026	2027	2030	S15	E73	.961	16467	6.3	4	-F	3	C		11		F ZX
150 BIGB	30	2102	2108	2121	S24	E90	1.000	16476	7.6	19	-B		C	2108	30		ZX
151 PALE	30	2116	2121	2122	N19	E57	.854	16466	5.2	6	-F	3	C		19		ZX
152 BIGB	30	2126	2130	2152	S11	E09	.259	16455	1.6	26	-N		C	2130	30	.3	ZX
GRP80153	30	2149	2159	2153D	S24	E90	1.000	16476	6.7	4	-B						
	00	0000	0000	0000	00	00	.078	16476	31.0					0000			
BIGB	30	2149	2150	2153C	S24	E90	1.000	16476	7.7	40	-B		P	2150	20		
	30	2343	2350	NO FLARE PATROL													

"REMARKS":

A = Eruptive prominence whose base is less than 90° from central meridian.
B = Probably the end of a more important flare.
C = Invisible 10 minutes before.
D = Brilliant point.
E = Two or more brilliant points.
F = Several eruptive centers.
G = No visible spots in the neighborhood.
H = Flare accompanied by high-speed dark filament.
I = Active region very extended.
J = Distinct variations of plage intensity before or after the flare.
K = Several intensity maxima.
L = Existing filaments show signs of sudden activity.
M = White-light flare.
N = Continuous spectrum shows effects of polarization.
O = Observations have been made in the H and K lines of CaII.
P = Flare shows helium D3 in emission.
Q = Flare shows Balmer continuum in emission.
R = Marked asymmetry in H-alpha line suggests ejection of high-velocity material.
S = Brightness follows disappearance of filament in same position.
T = Region active all day.
U = Two bright branches, parallel or converging.
V = Occurrence of an explosive phase: important, expansion within roughly 1 minute that often includes a significant intensity increase.
W = Great increase in area after time of maximum intensity.
X = Unusually wide H-alpha line.
Y = System of loop-type prominences.
Z = Major sunspot umbra covered by flare.

DAILY FLARE INDICES
Includes all Flares

NOVEMBER 1979

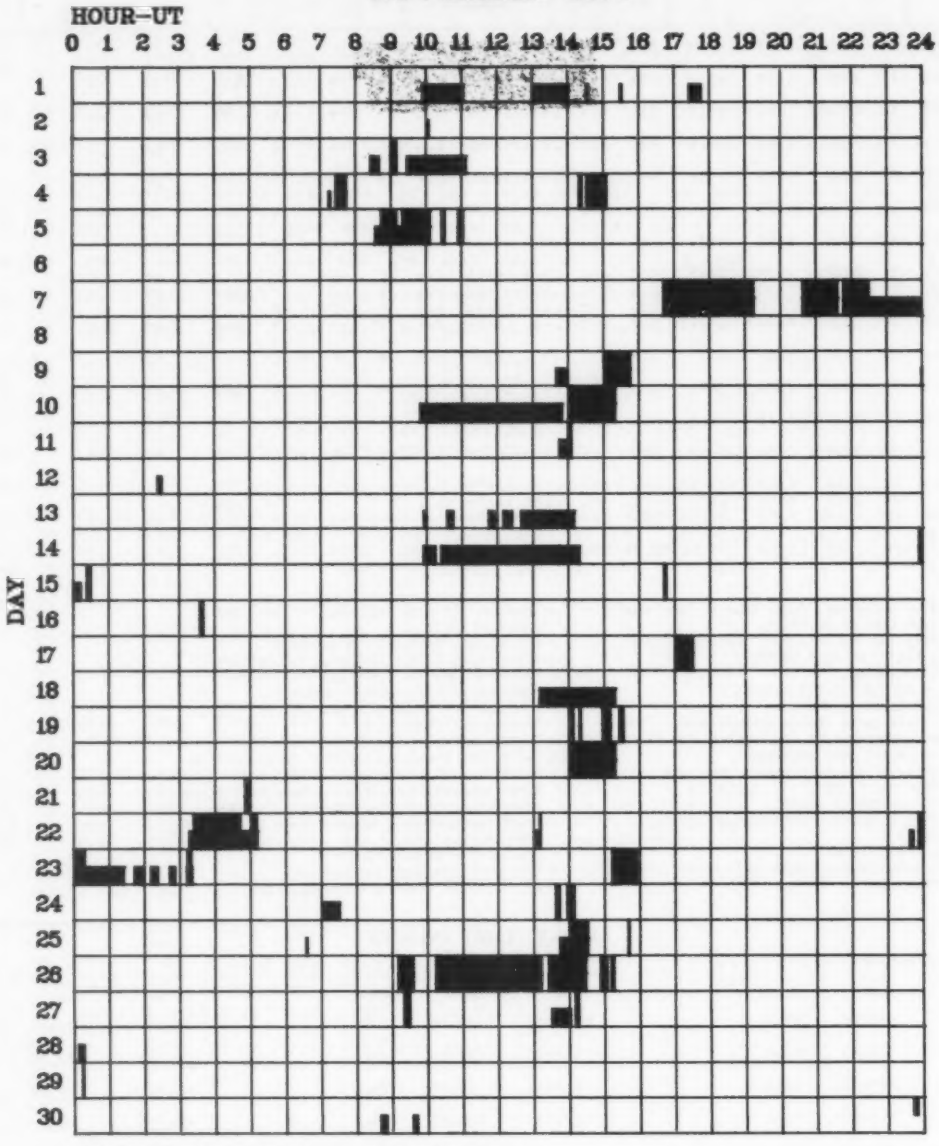
Date	Flare Index	HR. OBS.	Date	Flare Index	HR. OBS.	Date	Flare Index	HR. OBS.
791101.	111.06	24.0	791111.	206.60	23.9	791121.	70.72	23.9
791102.	77.74	24.0	791112.	766.15	24.0	791122.	61.94	22.3
791103.	135.32	23.8	791113.	70.26	24.0	791123.	129.88	23.1
791104.	111.52	23.1	791114.	160.84	24.0	791124.	76.87	23.7
791105.	461.81	22.6	791115.	374.09	23.8	791125.	37.28	23.4
791106.	355.68	24.0	791116.	423.49	23.9	791126.	24.11	19.5
791107.	250.41	19.8	791117.	127.21	23.5	791127.	45.45	23.7
791108.	360.75	24.0	791118.	120.02	24.0	791128.	22.80	24.0
791109.	278.32	23.3	791119.	57.71	23.5	791129.	36.36	24.0
791110.	781.65	22.7	791120.	54.78	22.7	791130.	37.58	23.9

When no Flare Index is given, it is 0 for that day.

INTERVALS OF NO FLARE PATROL OBSERVATION

FOR PRECEDING SOLAR FLARE TABLE

NOVEMBER 1979



Observatories included in total patrol:

Abastumani	Culgoora	Kanzelhoehe	Mitaka	Tashkent
Athens	Holloman	Kharkov	Monte Mario	Tel Aviv
Big Bear	Huancayo	Locarno	Palehua	Voroshilov
Bucharest	Haute Provence	Lvov	Purple Mt.	Wendelstein
Catania	Istanbul	Manila	Ramey	Yunnan

Times of no flare patrol are shown by the shaded area for each day divided into times of no cinematographic patrol (bottom half of day) and times of neither visual nor cinematographic patrol (top half of day).

SGD 442 Part II (Comprehensive)

MISCELLANEOUS DATA

Contents

	Page
Active Regions Sep 25-Oct 22, 1980	84
Synoptic Solar Maps Sep 25-Oct 22, 1980	85
Regional Flare Index October 1979	86

84
Misc
Sep-Oct 80

ACTIVE REGIONS
CARRINGTON ROTATION 1700
(September 25 to October 22, 1980)

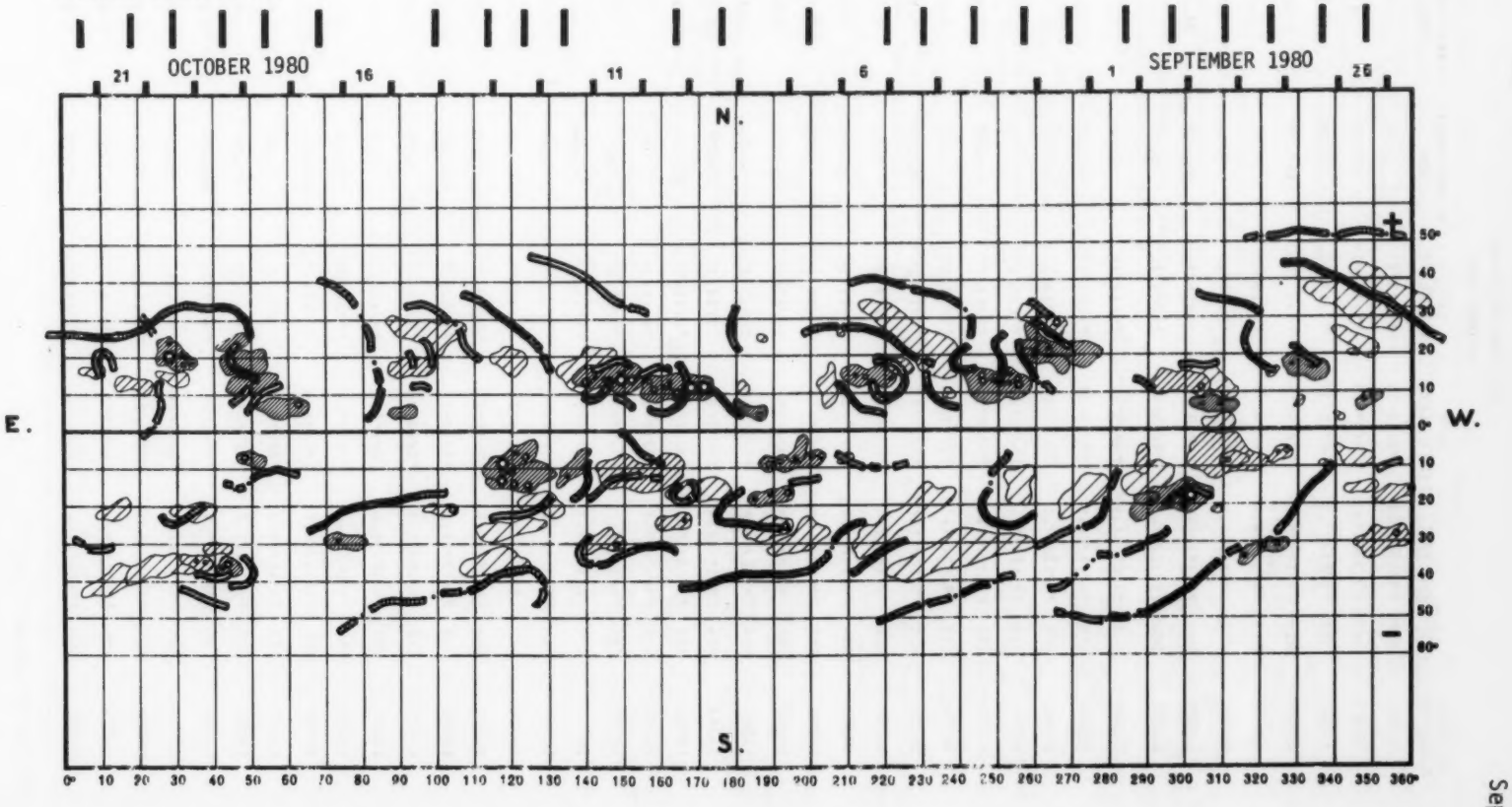
Region No.	Coordinates Lat.	Long.	IMP	Age at CMP	Spot-less Region	Region No. in Rotation 1699	Activity at West Limb
1	17°S	356	2	>6			decreasing
2	30 S	353	3	>6			decreasing
3	8 N	349	2	0			decreasing
4	16 S	347	1	>6	X		dispersed
5	7 S	345	1	>6	X		dispersed
6	21 N	345	1	-1	X		dispersed
7	9 S	337	1	-4	X		decreasing
8	17 N	332	2	>6			decreasing
9	6 S	325	2	-5			?
10	31 S	324	2	+4			decreasing
11	16 N	323	1	+1	X		disappeared
12	33 S	318	2	+2			decreasing
13	8 S	313	2	-5			?
14	6 S	311	1	>6	X	8	decreasing
15	2 N	309	1	>6	X		decreasing
16	7 S	308	2	+1			decreasing
17	13 N	299	3	>6		9	decreasing
18	18 S	296	4	>6			decreasing
19	18 S	290	2	+3			decreasing
20	8 S	289	1	>6	X	10	dispersed
21	21 N	267	1	>6	X	12	decreasing
22	28 N	265	2	>6			decreasing
23	19 N	263	2	6			decreasing
24	22 N	260	2	+3			decreasing
25	12 N	250	4	>6			stable
26	10 N	237	1	>6	X		dispersed
27	25 N	228	1	>6	X		dispersed
28	18 N	223	1	>6	X		decreasing
29	15 N	216	2	>6			decreasing
30	7 S	210	1	-2	X		dispersed
31	12 N	205	1	>6	X		dispersed
32	5 S	197	2	+5			dispersed
33	9 S	197	3	0			decreasing
34	29 S	197	1	>6	X		dispersed
35	18 S	190	2	-1			decreasing
36	26 S	190	3	>6			decreasing
37	9 S	189	2	+3			dispersed
38	5 N	184	2	-2			decreasing
39	12 N	182	1	+5	X		dispersed
40	16 S	170	1	>6	X		dispersed
41	12 N	164	7	>6			decreasing
42	24 S	164	2	+4			stable
43	12 S	156	1	>6	X	32	dispersed
44	15 N	147	6	>6			decreasing
45	29 S	144	3	>6			decreasing
46	17 N	140	1	>6	X	33, 35	dispersed
47	10 S	137	2	>6			decreasing
48	19 S	128	1	>6	X		dispersed
49	12 S	124	4	>6			decreasing
50	7 S	120	5	>6			decreasing
51	19 N	120	1	>6	X		dispersed
52	21 S	101	2	>6			decreasing
53	27 N	97	1	>6	X		dispersed
54	17 N	93	1	>6	X		decreasing
55	5 N	91	1	+2	X		decreasing
56	30 S	76	2	+6			decreasing
57	7 N	59	3	>6		48	decreasing
58	12 N	51	1	>6	X		decreasing
59	8 S	50	3	-3			decreasing
60	19 N	49	1	>6	X		decreasing
61	24 N	46	1	>6	X		decreasing
62	36 S	44	3	>6		51	decreasing
63	31 S	42	1	>6	X		decreasing
64	35 S	36	2	+2			decreasing
65	21 S	35	1	>6	X		dispersed
66	14 N	30	1	>6	X		dispersed
67	21 N	30	4	0			stable
68	36 S	26	1	>6	X	53	dispersed
69	13 N	19	1	>6	X		dispersed
70	21 S	14	1	>6	X		dispersed
71	16 N	8	1	>6	X		dispersed

SYNOPTIC SOLAR MAP

CARRINGTON ROTATION 1700

SEPTEMBER 25-OCTOBER 22, 1980

MEUDON OBSERVATORY



85
Misc
Sep-Oct 80

REGIONAL FLARE INDEX

Includes all Flares

OCTOBER 1979

NC MATH PLAGE NO.	LAT	CMP DATE	DATE FIRST FLARE	DATE LAST FLARE	FLARE-INDEX SUM	FLARE-INDEX MEAN	TOTAL NO. OF FLARES
16331	S35	79/10/02.0	79/10/01	79/10/01	1.90	1.90	1
16329	N23	79/10/02.3	79/09/25	79/10/02	15.52	1.94	7
16346	S22	79/10/03.0	79/10/05	79/10/09	54.38	12.88	4[illegible]
16337	N14	79/10/04.3	79/09/29	79/10/09	149.45	13.59	28
16334	S29	79/10/04.4	79/09/27	79/10/08	33.67	2.81	8
16355	S13	79/10/05.0	79/10/09	79/10/10	8.66	4.33	12
16336	N14	79/10/05.6	79/09/30	79/10/11	364.60	30.38	44
16364	N30	79/10/07.3	79/10/11	79/10/11	1.00	1.00	1
16361	S 5	79/10/08.5	79/10/10	79/10/14	8.66	1.73	2
16343	S16	79/10/08.8	79/10/05	79/10/15	41.87	1.81	27
16341	N24	79/10/09.1	79/10/02	79/10/15	305.80	21.91	[illegible]1
16344	N14	79/10/10.1	79/10/02	79/10/17	598.55	37.41	98
16348	S34	79/10/10.6	79/10/04	79/10/07	8.69	2.17	8
16372	S19	79/10/11.7	79/10/16	79/10/17	4.22	2.11	6
16350	N13	79/10/11.7	79/10/06	79/10/16	262.06	23.82	42
16390	N21	79/10/11.8	79/10/17	79/10/17	1.69	1.69	2
16360	S34	79/10/14.6	79/10/11	79/10/14	10.36	2.59	4
16358	S17	79/10/14.8	79/10/08	79/10/08	2.53	2.53	3
16357	N26	79/10/15.3	79/10/07	79/10/21	282.62	19.84	54
16365	S15	79/10/16.8	79/10/18	79/10/22	6.21	1.24	4
16363	N14	79/10/16.8	79/10/09	79/10/19	165.77	16.58	14
16366	N33	79/10/17.4	79/10/12	79/10/23	315.67	26.31	64
16367	N 5	79/10/17.9	79/10/12	79/10/12	.84	.84	1
16370	S18	79/10/18.1	79/10/17	79/10/19	14.29	4.76	4
16368	N 5	79/10/19.2	79/10/15	79/10/23	85.80	9.53	24
16390	N14	79/10/20.1	79/10/24	79/10/28	6.08	2.03	8
16373	N27	79/10/20.5	79/10/14	79/10/28	1917.72	147.52	122
16377	S15	79/10/20.5	79/10/22	79/10/27	5.48	2.74	2
16374	S27	79/10/21.8	79/10/17	79/10/27	116.81	10.62	23
16375	S12	79/10/21.9	79/10/21	79/10/21	0.00	0.00	1
16378	N30	79/10/22.8	79/10/20	79/10/20	5.28	5.28	1
16379	S13	79/10/23.3	79/10/16	79/10/30	80.14	5.34	38
16381	N20	79/10/24.8	79/10/19	79/10/23	134.69	26.94	4
16385	S29	79/10/26.9	79/10/29	79/10/29	1.90	1.90	2
16386	N17	79/10/27.3	79/10/21	79/11/01	54.36	4.53	2[illegible]
16384	S28	79/10/27.4	79/10/20	79/11/02	549.35	39.24	71
16394	N15	79/10/27.9	79/10/28	79/11/01	11.62	2.32	3
16388	S17	79/10/29.9	79/10/23	79/11/04	13.77	1.86	9
16389	N26	79/10/30.4	79/11/03	79/11/05	7.94	2.65	6
16392	N15	79/10/31.1	79/10/25	79/11/01	9.50	1.19	4

SOME OTHER SOURCES OF DATA

Data Available: Some data available in publication form are cited here. A list is given, along with addresses of the responsible institutions. The WDC-A for Solar-Terrestrial Physics publishes the Toyokawa, Ottawa and Penticton radio data in its monthly publication, *Solar-Geophysical Data*. The WDC-A for Solar-Terrestrial Physics also receives most of the periodicals when they become available.

Belgium: *Bulletin d'Observations: Activite Solaire - Observations Radioelectriques Solaires - 600 MHz (Humain, Belgium)* Observatoire Royal de Belgique, Ave. Circulaire 3, Brussels, Belgium (monthly since 1962)

Canada: *Solar Noise Observations at 2800 Mc/s (Ottawa - ARO) and 2700 Mc/s (Penticton - DRAO)* Series C Monthly Report, National Research Council, Radio Astronomy Section Ottawa 7, Ontario, Canada (since 1947)

France: *Carte Synoptiques de la Chromosphere Solaire* Observatoire de Paris, 92 Meudon, France (monthly since 1931)

Germany: *Daily Mean Value of Solar Flux Density* Heinrich-Hertz Institut, 1199 Berlin-Adlershof, Rudower Chaussee 5, G.D.R. (monthly since Jul 1957)

Italy: *Solar Phenomena - Monthly Bulletin and Photographic Supplement* Osservatorio Astronomica di Roma, Monte Mario, Rome, Italy (monthly since 1958); *Osservazion Solari, Solar Flux and Distinctive Events* Osservatorio Astronomico Di Trieste (quarterly since 1965); *Solar Observations made at Catania Astrophysical Observatory* (annually since 1967)

Japan: *Monthly Report of Solar Radio Emission* Radio Astronomy Section, Research Institute of Atmospherics, Nagoya University, Toyokawa, Japan (since 1956); *Solar Activity Chart* WDC-C2, Toyokawa Observatory, Nagoya University, Toyokawa, Japan (annually since 1968); *IAU Quarterly Bulletin on Solar Activity* Tokyo Astronomical Observatory, Mitaka, Tokyo, Japan (since 1978)

Netherlands: *Geomagnetic Data* IAGA Bulletin No. 12 (1932-69), No. 32 (since 1970) IUGG Publications Office, 39 ter, Rue Gay-Lussac, Paris V, France (annually)

Philippines: Manila Observatory "Solar Maps and Activity", Manila Observatory, P.O. Box 1231, Manila, Philippines (monthly)

Switzerland: Bulletin of "Berne Solar Observations", Institute of Applied Physics, Div. of Solar Observations, Sidlerstrasse 5, 3012 Berne, Switzerland (since 1968)

Taiwan: *Report on Sunspot Observations* Taiwan Provincial Weather Bureau Observatory, Taipei, Taiwan (quarterly since 1957)

USSR: СОЛНЕЧНЫЕ ДАННЫЕ *(Solar Data)* USSR Academy of Science (monthly since 1958); КОСМИЧЕСКИЕ ДАННЫЕ *(Cosmic Data)* (monthly since 1962); *Magnetic Fields of Sunspots* (bimonthly since 1964)

USA: *Preliminary Report and Forecast of Solar-Geophysical Activity* Space Environment Services Center, NOAA, Boulder, Colorado 80303 USA (weekly); *Solar-Geophysical Data* NOAA, Boulder, Colorado 80303 USA (monthly since November 1955)

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